Solutions Manual Accounting Principles 12th Edition Weygandt Kimmel Kieso (test bank link avaiable)

Complete download: https://testbankarea.com/?p=298

CHAPTER 1

Accounting in Action

ASSIGNMENT CLASSIFICATION TABLE

Learning Objectives	Questions	Brief Exercises	Do It!	Exercises	A Problems
1. Identify the activities and users associated with accounting.	1, 2, 3, 4, 5		1	1, 2	
2. Explain the building blocks of accounting: ethics, principles, and assumptions.	6, 7, 8, 9, 10		2	3, 4	
3. State the accounting equation, and define its components.	11, 12, 13, 22	1, 2, 3, 4, 5, 8	3, 5	5	1A, 2A 4A
4. Analyze the effects of business transactions on the accounting equation.	14, 15, 16, 18	6, 7, 9	4	6, 7, 8	1A, 2A, 4A, 5A
5. Describe the four financial statements and how they are prepared.	17, 19, 20, 21	10, 11	5	9, 10, 11, 12, 13, 14, 15, 16	2A, 3A, 4A, 5A

ASSIGNMENT CHARACTERISTICS TABLE

Problem Number	Description	Difficulty Level	Time Allotted (min.)
1A	Analyze transactions and compute net income.	Moderate	40–50
2A	Analyze transactions and prepare income statement, owner's equity statement, and balance sheet.	Moderate	50–60
3A	Prepare income statement, owner's equity statement, and balance sheet.	Moderate	50–60
4A	Analyze transactions and prepare financial statements.	Moderate	40–50
5A	Determine financial statement amounts and prepare owner's equity statement.	Moderate	40–50

WEYGANDT ACCOUNTING PRINCIPLES 12E
CHAPTER 1
ACCOUNTING IN ACTION

Number	LO	BT	Difficulty	Time (min.)
BE1	3	AP	Simple	2–4
BE2	3	AP	Simple	3–5
BE3	3	AP	Moderate	4–6
BE4	3	AP	Moderate	4–6
BE5	3	C	Simple	2–4
BE6	4	C	Simple	2–4
BE7	4	C	Simple	2–4
BE8	3	C	Simple	2–4
BE9	4	C	Simple	1–2
BE10	5	AP	Simple	3–5
BE11	5	C	Simple	2–4
DI1	1	K	Simple	2–4
DI2	2	K	Simple	2–4
DI3	3	AP	Simple	6–8
DI4	4	AP	Moderate	8–10
DI5	3, 5	AP	Moderate	10–12
EX1	1	C	Moderate	5–7
EX2	1	C	Simple	6–8
EX3	2	C	Moderate	6–8
EX4	2	C	Moderate	6–8
EX5	3	C	Simple	4–6
EX6	4	C	Simple	6–8
EX7	4	C	Simple	4–6
EX8	4	AP	Moderate	12–15
EX9	5	AP	Simple	12–15
EX10	5	AP	Moderate	8–10
EX11	5	AP	Moderate	6–8
EX12	5	AP	Simple	8–10
EX13	5	AN	Simple	8–10
EX14	5	AP	Simple	10–12
EX15	5	AP	Simple	6–8
EX16	5	AP	Moderate	6–8

Number	LO	BT	Difficulty	Time (min.)
P1A	3, 4	AP	Moderate	40–50
P2A	3–5	AP	Moderate	50–60
P3A	5	AP	Moderate	50–60
P4A	3–5	AP	Moderate	40–50
P5A	4, 5	AP	Moderate	40–50
BYP1	5	AN	Simple	10–15
BYP2	5	AN, E	Simple	10–15
BYP3	5	AN, E	Simple	10–15
BYP4	6	C, AN	Simple	15–20
BYP5	4	E	Moderate	15–20
BYP6	5	E	Simple	12–15
BYP7	2	E	Simple	10–12
BYP8	2	E	Moderate	15–20
BYP9	–	AP	Moderate	15–20
BYP10	–	C	Simple	10–15

Correlation Chart between Bloom's Taxonomy, Learning Objectives and End-of-Chapter Exercises and Problems

Learning Objective	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
1. Identify the activities and users associated with accounting.	DI1-1	Q1-1 Q1-2 Q1-3 Q1-4 Q1-5 E1-1 E1-2				
3. Explain the building blocks of accounting: ethics, principles, and assumptions.	Q1-7 Q1-8 Q1-9 Q1-10 DI1-1	Q1-6 E1-3 E1-4				
3. State the accounting equation, and define its components.	DI1-2 BE1-5	Q1-11 Q1-12 Q1-13 BE1-4 BE1-8 BE1-9 E1-5	BE1-1 BE1-2 BE1-3 DI1-5 P1-1A P1-2A P1-4A			
4. Analyze the effects of business transactions on the accounting equation.		Q1-14 Q1-15 Q1-16 Q1-18 BE1-6 BE1-7 E1-6 E1-7	DI1-4 E1-8 P1-1A P1-2A P1-4A P1-5A			
5. Describe the four financial statements and how they are prepared.		Q1-17 Q1-19 BE1-11	Q1-20 Q1-21 BE1-10 DI1-5 E1-8 E1-9 E1-10 E1-11 E1-12 E1-14 E1-15 E1-16 E1-17 P1-2A P1-3A P1-4A P1-5A	E1-13		
Broadening Your Perspective		Real–World Focus Considering People, Planet, and Profit	FASB Codification	Financial Reporting Comparative Analysis		All About You Comparative Analysis Decision–Making Across the Organization Communication Activity Ethics Case

ANSWERS TO QUESTIONS

1. Yes, this is correct. Virtually every organization and person in our society uses accounting information. Businesses, investors, creditors, government agencies, and not-for-profit organizations must use accounting information to operate effectively.

2. Accounting is the process of identifying, recording, and communicating the economic events of an organization to interested users of the information. The first step of the accounting process is therefore to identify economic events that are relevant to a particular business. Once identified and measured, the events are recorded to provide a history of the financial activities of the organization. Recording consists of keeping a chronological diary of these measured events in an orderly and systematic manner. The information is communicated through the preparation and distribution of accounting reports, the most common of which are called financial statements. A vital element in the communication process is the accountant's ability and responsibility to analyze and interpret the reported information.

3. (a) Internal users are those who plan, organize, and run the business and therefore are officers and other decision makers.
(b) To assist management, managerial accounting provides internal reports. Examples include financial comparisons of operating alternatives, projections of income from new sales campaigns, and forecasts of cash needs for the next year.

4. (a) Investors (owners) use accounting information to make decisions to buy, hold, or sell ownership shares of a company.
(b) Creditors use accounting information to evaluate the risks of granting credit or lending money.

5. No, this is incorrect. Bookkeeping usually involves only the recording of economic events and therefore is just one part of the entire accounting process. Accounting, on the other hand, involves the entire process of identifying, recording, and communicating economic events.

6. Trenton Travel Agency should report the land at $90,000 on its December 31, 2017 balance sheet. This is true not only at the time the land is purchased, but also over the time the land is held. In determining which measurement principle to use (cost or fair value) companies weigh the factual nature of cost figures versus the relevance of fair value. In general, companies use cost. Only in situations where assets are actively traded do companies apply the fair value principle. An important concept that accountants follow is the historical cost principle.

7. The monetary unit assumption requires that only transaction data that can be expressed in terms of money be included in the accounting records. This assumption enables accounting to quantify (measure) economic events.

8. The economic entity assumption requires that the activities of the entity be kept separate and distinct from the activities of its owners and all other economic entities.

9. The three basic forms of business organizations are: (1) proprietorship, (2) partnership, and (3) corporation.

Questions Chapter 1 (Continued)

10. One of the advantages Rachel Hipp would enjoy is that ownership of a corporation is represented by transferable shares of stock. This would allow Rachel to raise money easily by selling a part of her ownership in the company. Another advantage is that because holders of the shares (stockholders) enjoy limited liability; they are not personally liable for the debts of the corporate entity. Also, because ownership can be transferred without dissolving the corporation, the corporation enjoys an unlimited life.

11. The basic accounting equation is Assets = Liabilities + Owner's Equity.

12. (a) Assets are resources owned by a business. Liabilities are claims against assets. Put more simply, liabilities are existing debts and obligations. Owner's equity is the ownership claim on total assets.
(b) Owner's equity is affected by owner's investments, drawings, revenues, and expenses.

13. The liabilities are: (b) Accounts payable and (g) Salaries and wages payable.

14. Yes, a business can enter into a transaction in which only the left side of the accounting equation is affected. An example would be a transaction where an increase in one asset is offset by a decrease in another asset. An increase in the Equipment account which is offset by a decrease in the Cash account is a specific example.

15. Business transactions are the economic events of the enterprise recorded by accountants because they affect the basic accounting equation.
(a) The death of the owner of the company is not a business transaction as it does not affect the basic accounting equation.
(b) Supplies purchased on account is a business transaction as it affects the basic accounting equation.
(c) An employee being fired is not a business transaction as it does not affect the basic accounting equation.
(d) A withdrawal of cash from the business is a business transaction as it affects the basic accounting equation.

16. (a) Decrease assets and decrease owner's equity.
(b) Increase assets and decrease assets.
(c) Increase assets and increase owner's equity.
(d) Decrease assets and decrease liabilities.

17. (a) Income statement.
(b) Balance sheet.
(c) Income statement.
(d) Balance sheet.
(e) Balance sheet and owner's equity statement.
(f) Balance sheet.

18. No, this treatment is not proper. While the transaction does involve a receipt of cash, it does not represent revenues. Revenues are the gross increase in owner's equity resulting from business activities entered into for the purpose of earning income. This transaction is simply an additional investment made by the owner in the business.

Questions Chapter 1 (Continued)

19. Yes. Net income does appear on the income statement—it is the result of subtracting expenses from revenues. In addition, net income appears in the owner's equity statement—it is shown as an addition to the beginning-of-period capital. Indirectly, the net income of a company is also included in the balance sheet. It is included in the capital account which appears in the owner's equity section of the balance sheet.

20. (a)

Ending capital balance	$198,000
Beginning capital balance	168,000
Net income	$ 30,000

(b)

Ending capital balance	$198,000
Beginning capital balance	168,000
	30,000
Deduct: Investment	13,000
Net income	$ 17,000

21. (a) Total revenues ($20,000 + $70,000) $90,000

(b) Total expenses ($26,000 + $40,000) $66,000

(c)

Total revenues	$90,000
Total expenses	66,000
Net income	$24,000

22. Apple's accounting equation at September 28, 2013 was $207,000,000,000 = $83,451,000,000 + $123,549,000,000.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 1-1

(a) $90,000 – $50,000 = $40,000 (Owner's Equity).
(b) $44,000 + $70,000 = $114,000 (Assets).
(c) $94,000 – $53,000 = $41,000 (Liabilities).

BRIEF EXERCISE 1-2

(a) $120,000 + $232,000 = $352,000 (Total assets).
(b) $190,000 – $91,000 = $99,000 (Total liabilities).
(c) $800,000 – 0.5($800,000) = $400,000 (Owner's equity).

BRIEF EXERCISE 1-3

(a) ($800,000 + $150,000) – ($300,000 – $60,000) = $710,000 (Owner's equity).
(b) ($300,000 + $100,000) + ($800,000 – $300,000 – $70,000) = $830,000 (Assets).
(c) ($800,000 – $80,000) – ($800,000 – $300,000 + $120,000) = $100,000 (Liabilities).

BRIEF EXERCISE 1-4

					Owner's Equity						
	Assets	=	Liabilities	+	Owner's Capital	–	Owner's Drawings	+	Revenues	–	Expenses
(a)	X	=	$90,000	+	$150,000	–	$40,000	+	$450,000	–	$320,000
	X	=	$90,000	+	$240,000						
	X	=	$330,000								
(b)	$57,000	=	X	+	$25,000	–	$7,000	+	$52,000	–	$35,000
	$57,000	=	X	+	$35,000						
	X	=	$22,000 ($57,000 – $35,000)								
(c)	$600,000	=	($600,000 x 2/3)	+	X (Owner's equity)						
	$600,000	=	$400,000	+	X						
	X	=	$200,000								

BRIEF EXERCISE 1-5

A	(a)	Accounts receivable	A	(d)	Supplies
L	(b)	Salaries and wages payable	OE	(e)	Owner's capital
A	(c)	Equipment	L	(f)	Notes payable

BRIEF EXERCISE 1-6

	Assets	Liabilities	Owner's Equity
(a)	+	+	NE
(b)	+	NE	+
(c)	–	NE	–

BRIEF EXERCISE 1-7

	Assets	Liabilities	Owner's Equity
(a)	+	NE	+
(b)	–	NE	–
(c)	NE	NE	NE

BRIEF EXERCISE 1-8

E	(a)	Advertising expense	D	(e)	Owner's drawings
R	(b)	Service revenue	R	(f)	Rent revenue
E	(c)	Insurance expense	E	(g)	Utilities expense
E	(d)	Salaries and wages expense			

BRIEF EXERCISE 1-9

R	(a)	Received cash for services performed
NOE	(b)	Paid cash to purchase equipment
E	(c)	Paid employee salaries

BRIEF EXERCISE 1-10

MENDOZA COMPANY
Balance Sheet
December 31, 2017

Assets	
Cash	$ 49,000
Accounts receivable	72,500
Total assets	$121,500
Liabilities and Owner's Equity	
Liabilities	
Accounts payable	$ 90,000
Owner's equity	
Owner's capital	31,500
Total liabilities and owner's equity	$121,500

BRIEF EXERCISE 1-11

BS	(a)	Notes payable
IS	(b)	Advertising expense
OE, BS	(c)	Owner's capital
BS	(d)	Cash
IS	(e)	Service revenue

SOLUTIONS FOR DO IT! REVIEW EXERCISES

DO IT! 1-1

1. False. The three steps in the accounting process are identification, recording, and communication.
2. True.
3. False. Financial accounting provides reports to help investors and creditors evaluate a company.
4. True.
5. True.

DO IT! 1-2

1. **False. Congress passed the Sarbanes-Oxley Act to reduce unethical behavior and decrease the likelihood of future corporate scandals.**
2. **False. The standards of conduct by which actions are judged as right or wrong, honest or dishonest, fair or not fair, are ethics.**
3. **False. The primary accounting standard-setting body in the United States is the Financial Accounting Standards Board (FASB).**
4. **True.**
5. **True.**

DO IT! 1-3

1. **Drawings is owner's drawings (D); it decreases owner's equity.**
2. **Rent Revenue is revenue (R); it increases owner's equity.**
3. **Advertising Expense is an expense (E); it decreases owner's equity.**
4. **When the owner puts personal assets into the business, it is investment by owner (I); it increases owner's equity.**

DO IT! 1-4

	Assets		= Liabilities +	Owner's Equity			
	Cash	+ Accounts Receivable	= Accounts Payable	+ Owner's Capital	– Owner's Drawings	+ Revenues	– Expenses
(1)		+$20,000				+$20,000	
(2)	+$20,000	–$20,000					
(3)			+$2,300				–$2,300
(4)	–$ 3,600				–$3,600		

DO IT! 1-5

(a) **The total assets are $49,000, comprised of Cash $6,500, Accounts Receivable $13,500, and Equipment $29,000.**

(b) **Net income is $20,500, computed as follows:**

Revenues		
Service revenue		**$53,500**
Expenses		
Salaries and wages expense	**$16,500**	
Rent expense	**10,500**	
Advertising expense	**6,000**	
Total expenses		**33,000**
Net income		**$20,500**

(c) **The ending owner's equity balance of Kirby Company is $21,000. By rewriting the accounting equation, we can compute Owner's Equity as Assets minus Liabilities, as follows:**

Total assets [as computed in (a)]		**$49,000**
Less: Liabilities		
Notes payable	**$25,000**	
Accounts payable	**3,000**	**28,000**
Owner's equity		**$21,000**

Note that it is not possible to determine the company's owner's equity in any other way, because the beginning balance for owner's equity is not provided.

SOLUTIONS TO EXERCISES

EXERCISE 1-1

- C Analyzing and interpreting information.
- R Classifying economic events.
- C Explaining uses, meaning, and limitations of data.
- R Keeping a systematic chronological diary of events.
- R Measuring events in dollars and cents.
- C Preparing accounting reports.
- C Reporting information in a standard format.
- I Selecting economic activities relevant to the company.
- R Summarizing economic events.

EXERCISE 1-2

(a) *Internal users*

Marketing manager
Production supervisor
Store manager
Vice-president of finance

External users

Customers
Internal Revenue Service
Labor unions
Securities and Exchange Commission
Suppliers

(b)
- I Can we afford to give our employees a pay raise?
- E Did the company earn a satisfactory income?
- I Do we need to borrow in the near future?
- E How does the company's profitability compare to other companies?
- I What does it cost us to manufacture each unit produced?
- I Which product should we emphasize?
- E Will the company be able to pay its short-term debts?

EXERCISE 1-3

Angela Duffy, president of Duffy Company, instructed Jana Barth, the head of the accounting department, to report the company's land in its accounting reports at its fair value of $170,000 instead of its cost of $100,000, in an effort to make the company appear to be a better investment. The historical cost principle requires that assets be recorded and reported at their cost, because cost is faithfully representative and can be objectively measured and verified. In this case, the historical cost principle should be used and Land reported at $100,000, not $170,000.

The stakeholders include stockholders and creditors of Duffy Company, potential stockholders and creditors, other users of Duffy's accounting reports, Angela Duffy, and Jana Barth. All users of Duffy's accounting reports could be harmed by relying on information that may be unreliable. Angela Duffy could benefit if the company is able to attract more investors, but would be harmed if the inappropriate reporting is discovered. Similarly, Jana Barth could benefit by pleasing her boss, but would be harmed if the inappropriate reporting is discovered.

Jana's alternatives are to report the land at $100,000 or to report it at $170,000. Reporting the land at $170,000 is not appropriate since it may mislead many people who rely on Duffy's accounting reports to make financial decisions. Jana should report the land at its cost of $100,000. She should try to convince Angela Duffy that this is the appropriate course of action, but be prepared to resign her position if Duffy insists.

EXERCISE 1-4

1. **Incorrect. The historical cost principle requires that assets (such as buildings) be recorded and reported at their cost.**

2. **Correct. The monetary unit assumption requires that companies include in the accounting records only transaction data that can be expressed in terms of money.**

3. **Incorrect. The economic entity assumption requires that the activities of the entity be kept separate and distinct from the activities of its owner and all other economic entities.**

EXERCISE 1-5

Asset	Liability	Owner's Equity
Cash	Accounts payable	Owner's capital
Equipment	Notes payable	
Supplies	Salaries and wages payable	
Accounts receivable		

EXERCISE 1-6

1. Increase in assets and increase in owner's equity.
2. Decrease in assets and decrease in owner's equity.
3. Increase in assets and increase in liabilities.
4. Increase in assets and increase in owner's equity.
5. Decrease in assets and decrease in owner's equity.
6. Increase in assets and decrease in assets.
7. Increase in liabilities and decrease in owner's equity.
8. Increase in assets and decrease in assets.
9. Increase in assets and increase in owner's equity.

EXERCISE 1-7

1.	(c)	5.	(d)
2.	(d)	6.	(b)
3.	(a)	7.	(e)
4.	(b)	8.	(f)

EXERCISE 1-8

(a)
1. Owner invested $15,000 cash in the business.
2. Purchased equipment for $5,000, paying $2,000 in cash and the balance of $3,000 on account.
3. Paid $750 cash for supplies.
4. Performed $8,500 of services, receiving $4,600 cash and $3,900 on account.
5. Paid $1,500 cash on accounts payable.

EXERCISE 1-8 (Continued)

6. Owner withdrew $2,000 cash for personal use.
7. Paid $650 cash for rent.
8. Collected $450 cash from customers on account.
9. Paid salaries and wages of $4,800.
10. Incurred $400 of utilities expense on account.

(b)	Investment	$15,000
	Service revenue	8,500
	Drawings	(2,000)
	Rent expense	(650)
	Salaries and wages expense	(4,800)
	Utilities expense	(400)
	Increase in owner's equity	$15,650

(c)	Service revenue	$8,500
	Rent expense	(650)
	Salaries and wages expense	(4,800)
	Utilities expense	(400)
	Net income	$2,650

EXERCISE 1-9

ARTHUR COOPER & CO.
Income Statement
For the Month Ended August 31, 2017

Revenues		
Service revenue		$8,500
Expenses		
Salaries and wages expense	$4,800	
Rent expense	650	
Utilities expense	400	
Total expenses		5,850
Net income		$2,650

EXERCISE 1-9 (Continued)

ARTHUR COOPER & CO.
Owner's Equity Statement
For the Month Ended August 31, 2017

Owner's capital, August 1		$ 0
Add: Investments	$15,000	
Net income	2,650	17,650
		17,650
Less: Drawings		2,000
Owner's capital, August 31		$15,650

ARTHUR COOPER & CO.
Balance Sheet
August 31, 2017

Assets	
Cash	$ 8,350
Accounts receivable	3,450
Supplies	750
Equipment	5,000
Total assets	$17,550
Liabilities and Owner's Equity	
Liabilities	
Accounts payable	$ 1,900
Owner's equity	
Owner's capital	15,650
Total liabilities and owner's equity	$17,550

EXERCISE 1-10

(a)	Owner's equity—12/31/16 ($400,000 – $250,000)	$150,000
	Owner's equity—1/1/16	100,000
	Increase in owner's equity	50,000
	Add: Drawings	15,000
	Net income for 2016	$ 65,000

EXERCISE 1-10 (Continued)

(b)

Owner's equity—12/31/17 ($460,000 – $300,000)	$160,000
Owner's equity—1/1/17—see (a)	150,000
Increase in owner's equity	10,000
Less: Additional investment	45,000
Net loss for 2017	$ (35,000)

(c)

Owner's equity—12/31/18 ($590,000 – $400,000)	$190,000
Owner's equity—1/1/18—see (b)	160,000
Increase in owner's equity	30,000
Less: Additional investment	15,000
	15,000
Add: Drawings	25,000
Net income for 2018	$ 40,000

EXERCISE 1-11

(a)

Total assets (beginning of year)	$110,000
Total liabilities (beginning of year)	85,000
Total owner's equity (beginning of year)	$ 25,000

(b)

Total owner's equity (end of year)	$ 40,000
Total owner's equity (beginning of year)	25,000
Increase in owner's equity	$ 15,000

Total revenues	$220,000
Total expenses	175,000
Net income	$ 45,000

Increase in owner's equity		$ 15,000
Less: Net income	$(45,000)	
Add: Drawings	37,000	(8,000)
Additional investment		$ 7,000

(c)

Total assets (beginning of year)	$129,000
Total owner's equity (beginning of year)	80,000
Total liabilities (beginning of year)	$ 49,000

EXERCISE 1-11 (Continued)

(d)

Total owner's equity (end of year)		$130,000
Total owner's equity (beginning of year)		80,000
Increase in owner's equity		$ 50,000
Total revenues		$100,000
Total expenses		60,000
Net income		$ 40,000
Increase in owner's equity		$ 50,000
Less: Net income	$(40,000)	
Additional investment	(25,000)	(65,000)
Drawings		$ 15,000

EXERCISE 1-12

ARMANDA CO.
Income Statement
For the Year Ended December 31, 2017

Revenues		
Service revenue		$63,600
Expenses		
Salaries and wages expense	$29,500	
Rent expense	10,400	
Utilities expense	3,100	
Advertising expense	1,800	
Total expenses		44,800
Net income		$18,800

ARMANDA CO.
Owner's Equity Statement
For the Year Ended December 31, 2017

Owner's capital, January 1	$48,000
Add: Net income	18,800
	66,800
Less: Drawings	6,000
Owner's capital, December 31	$60,800

EXERCISE 1-13

CHENG COMPANY
Balance Sheet
December 31, 2017

Assets	
Cash	$15,000
Accounts receivable	6,500
Supplies	8,000
Equipment	46,000
Total assets	$75,500
Liabilities and Owner's Equity	
Liabilities	
Accounts payable	$21,000
Owner's equity	
Owner's capital ($67,500 – $13,000)	54,500
Total liabilities and owner's equity	$75,500

EXERCISE 1-14

(a)

Camping fee revenues	$140,000
General store revenues	65,000
Total revenue	205,000
Expenses	150,000
Net income	$ 55,000

(b)

CLEAR VIEW PARK
Balance Sheet
December 31, 2017

Assets	
Cash	$ 23,000
Accounts Receivable	17,500
Equipment	105,500
Total assets	$146,000

EXERCISE 1-14 (Continued)

CLEAR VIEW PARK
Balance Sheet (Continued)
December 31, 2017

Liabilities and Owner's Equity	
Liabilities	
Notes payable	$ 60,000
Accounts payable	11,000
Total liabilities	71,000
Owner's equity	
Owner's capital ($146,000 – $71,000)	75,000
Total liabilities and owner's equity	$146,000

EXERCISE 1-15

SEA LEGS CRUISE COMPANY
Income Statement
For the Year Ended December 31, 2017

Revenues		
Ticket revenue		$410,000
Expenses		
Salaries and wages expense	$142,000	
Maintenance and repairs expense	95,000	
Advertising expense	24,500	
Utilities expense	13,000	
Total expenses		274,500
Net income		$135,500

EXERCISE 1-16

ALICE HENNING, ATTORNEY
Owner's Equity Statement
For the Year Ended December 31, 2017

Owner's capital, January 1	$ 34,000	(a)
Add: Net income	124,000	(b)
	158,000	
Less: Drawings	90,000	
Owner's capital, December 31	$ 68,000	(c)

EXERCISE 1-16 (Continued)

Supporting Computations

(a)	Assets, January 1, 2017	$ 96,000
	Liabilities, January 1, 2017	62,000
	Capital, January 1, 2017	$ 34,000
(b)	Legal service revenue	$335,000
	Total expenses	211,000
	Net income	$124,000
(c)	Assets, December 31, 2017	$168,000
	Liabilities, December 31, 2017	100,000
	Capital, December 31, 2017	$ 68,000

PROBLEM 1-1A

(a)

SPENGEL'S TRAVEL AGENCY

											Owner's Equity						
	Cash	+	Accounts Receivable	+	Supplies	+	Equipment	=	Accounts Payable	+	Owner's Capital	–	Owner's Drawings	+	Revenues	–	Expenses
1.	+$15,000										+$15,000						
	15,000							=			15,000						
2.	–600																–$600
	14,400							=			15,000						–600
3.	–3,000						+$3,000										
	11,400					+	3,000	=			15,000						–600
4.									+$700								–700
	11,400					+	3,000	=	700	+	15,000						–1,300
5.	–900				+$900												
	10,500			+	900	+	3,000	=	700	+	15,000						–1,300
6.	+3,000		+$7,000												+$10,000		
	13,500	+	7,000	+	900	+	3,000	=	700	+	15,000				10,000		–1,300
7.	–600												–$600				
	12,900	+	7,000	+	900	+	3,000	=	700	+	15,000		–600		10,000		–1,300
8.	–500								–500								
	12,400	+	7,000	+	900	+	3,000	=	200		15,000		–600		10,000		–1,300
9.	–2,500																–2,500
	9,900	+	7,000	+	900	+	3,000	=	200		15,000		–600		10,000		–3,800
10.	+4,000		–4,000														
	$13,900	+	$3,000	+	$900	+	$3,000	=	$200	+	$15,000	–	$600	+	$10,000	–	$3,800

$20,800 $20,800

PROBLEM 1-1A (Continued)

(b)	Service revenue		$10,000
	Expenses		
	Salaries and wages	$2,500	
	Rent	600	
	Advertising	700	3,800
	Net income		$ 6,200

PROBLEM 1-2A

(a)

JUDI SALEM, ATTORNEY AT LAW

													Owner's Equity						
	Cash	+	Accounts Receivable	+	Supplies	+	Equipment	=	Notes Payable	+	Accounts Payable	+	Owner's Capital	–	Owner's Drawings	+	Revenues	–	Expenses
Bal.	$5,000	+	$1,500	+	$500	+	$6,000	=			$4,200	+	$8,800						
1.	+1,200		–1,200																
	6,200	+	300	+	500	+	6,000	=			4,200	+	8,800						
2.	–2,800										–2,800								
	3,400	+	300	+	500	+	6,000	=			1,400	+	8,800						
3.	+3,000		+4,500														+$7,500		
	6,400	+	4,800	+	500	+	6,000	=			1,400	+	8,800				7,500		
4.	–400						+2,000				+1,600								
	6,000	+	4,800	+	500	+	8,000	=			3,000	+	8,800			+	7,500		
5.	–3,800																		–$2,500
																			–900
																			–400
	2,200	+	4,800	+	500	+	8,000	=			3,000	+	8,800			+	7,500		–3,800
6.	–700														–$700				
	1,500	+	4,800	+	500	+	8,000	=			3,000	+	8,800		–700	+	7,500		–3,800
7.	+2,000								+$2,000										
	3,500	+	4,800	+	500	+	8,000	=	2,000	+	3,000	+	8,800		–700	+	7,500		–3,800
8.											+270								–270
	$3,500	+	$4,800	+	$500	+	$8,000	=	$2,000	+	$3,270	+	$8,800	–	$700	+	$7,500	–	$4,070
			$16,800										$16,800						

(b)

JUDI SALEM, ATTORNEY AT LAW
Income Statement
For the Month Ended August 31, 2017

Revenues		
Service revenue		$7,500
Expenses		
Salaries and wages expense	$2,500	
Rent expense	900	
Advertising expense	400	
Utilities expense	270	
Total expenses		4,070
Net income		$3,430

JUDI SALEM, ATTORNEY AT LAW
Owner's Equity Statement
For the Month Ended August 31, 2017

Owner's capital, August 1	$ 8,800
Add: Net income	3,430
	12,230
Less: Drawings	700
Owner's capital, August 31	$11,530

JUDI SALEM, ATTORNEY AT LAW
Balance Sheet
August 31, 2017

Assets

Cash	$ 3,500
Accounts receivable	4,800
Supplies	500
Equipment	8,000
Total assets	$16,800

Liabilities and Owner's Equity

Liabilities	
Notes payable	$ 2,000
Accounts payable	3,270
Total liabilities	5,270
Owner's equity	
Owner's capital	11,530
Total liabilities and owner's equity	$16,800

PROBLEM 1-3A

(a)

DIVINE DESIGNS CO.
Income Statement
For the Month Ended June 30, 2017

Revenues		
Service revenue		$6,500
Expenses		
Rent expense	$1,600	
Advertising expense	500	
Gasoline expense	200	
Utilities expense	150	
Total expenses		2,450
Net income		$4,050

DIVINE DESIGNS CO.
Owner's Equity Statement
For the Month Ended June 30, 2017

Owner's capital, June 1		$ 0
Add: Investments	$12,000	
Net income	4,050	16,050
		16,050
Less: Drawings		1,300
Owner's capital, June 30		$14,750

DIVINE DESIGNS CO.
Balance Sheet
June 30, 2017

Assets	
Cash	$10,150
Accounts receivable	2,800
Supplies	2,000
Equipment	10,000
Total assets	$24,950

PROBLEM 1-3A (Continued)

DIVINE DESIGNS CO.
Balance Sheet (Continued)
June 30, 2017

Liabilities and Owner's Equity

Liabilities		
Notes payable		$ 9,000
Accounts payable		1,200
Total liabilities		10,200
Owner's equity		
Owner's capital		14,750
Total liabilities and owner's equity		$24,950

(b)

DIVINE DESIGNS CO.
Income Statement
For the Month Ended June 30, 2017

Revenues		
Service revenue ($6,500 + $900)		$7,400
Expenses		
Rent expense	$1,600	
Advertising expense	500	
Gasoline expense ($200 + $150)	350	
Utilities expense	150	
Total expenses		2,600
Net income		$4,800

DIVINE DESIGNS CO.
Owner's Equity Statement
For the Month Ended June 30, 2017

Owner's capital, June 1		$ 0
Add: Investments	$12,000	
Net income	4,800	16,800
		16,800
Less: Drawings		1,300
Owner's capital, June 30		$15,500

PROBLEM 1-4A

(a)

MATRIX CONSULTING

	Assets				= Liabilities		+ Owner's Equity			
Date	Cash	+ Accounts Receivable	+ Supplies	+ Equipment	= Notes Payable	+ Accounts Payable	+ Owner's Capital	– Owner's Drawings	+ Revenues	– Expenses
May 1	$ 7,000						$7,000			
2	(900)									($ 900)
3			$600			$ 600				
5	(125)									(125)
9	4,000								$ 4,000	
12	(1,000)							($1,000)		
15		$5,400							5,400	
17	(2,500)									(2,500)
20	(600)					(600)				
23	4,000	(4,000)								
26	5,000				$5,000					
29				$4,200		4,200				
30	(275)									(275)
	$14,600	+ $1,400	+ $600	+ $4,200	= $5,000	+ $4,200	+ $7,000	– $1,000	+ $9,400	– $3,800

PROBLEM 1-4A (Continued)

(b)

MATRIX CONSULTING
Income Statement
For the Month Ended May 31, 2017

Revenues		
Service revenue ($4,000 + $5,400)		$9,400
Expenses		
Salaries and wages expense	$2,500	
Rent expense	900	
Utilities expense	275	
Advertising expense	125	
Total expenses		3,800
Net income		$5,600

(c)

MATRIX CONSULTING
Balance Sheet
May 31, 2017

Assets	
Cash	$14,600
Accounts receivable	1,400
Supplies	600
Equipment	4,200
Total assets	$20,800
Liabilities and Owner's Equity	
Liabilities	
Notes payable	$ 5,000
Accounts payable	4,200
Total liabilities	9,200
Owner's equity	
Owner's capital	11,600*
Total liabilities and owner's equity	$20,800

*($7,000 + $5,600 – $1,000)

PROBLEM 1-5A

(a)

Alpha Company		Beta Company		Psi Company		Omega Company	
(a)	$ 39,000	(d)	$50,000	(g)	$129,000	(j)	$ 60,000
(b)	110,000	(e)	40,000	(h)	88,000	(k)	251,000
(c)	9,000	(f)	33,000	(i)	385,000	(l)	444,000

(b)

ALPHA COMPANY
Owner's Equity Statement
For the Year Ended December 31, 2017

Owner's capital, January 1		$39,000
Add: Investment	$ 9,000	
Net income	17,000	26,000
		65,000
Less: Drawings		15,000
Owner's capital, December 31		$50,000

(c) The sequence of preparing financial statements is income statement, owner's equity statement, and balance sheet. The interrelationship of the owner's equity statement to the other financial statements results from the fact that net income from the income statement is reported in the owner's equity statement and ending capital reported in the owner's equity statement is the amount reported for owner's equity on the balance sheet.

CC1 CONTINUING COOKIE CHRONICLE

(a) Natalie has a choice between a sole proprietorship and a corporation. A partnership is not an option since she is the sole owner of the business.

A proprietorship is the easiest to create and operate because there are no formal procedures involved in creating the proprietorship. However, if she operates the business as a proprietorship she will personally have unlimited liability for the debts of the business. Operating the business as a corporation would limit her liability to her investment in the business. Natalie will in all likelihood require the services of a lawyer to incorporate. Costs to incorporate as well as additional ongoing costs to administrate and operate the business as a corporation may be costly.

My recommendation is that Natalie choose the proprietorship form of business organization. This is a very small business where the cost of incorporating outweighs the benefits of incorporating at this point in time. Furthermore, it will be easier to stop operating the business if Natalie decides not to continue with it once she has finished college.

(b) Yes, Natalie will need accounting information to help her operate her business. She will need information on her cash balance on a daily or weekly basis to help her determine if she can pay her bills. She will need to know the cost of her services so she can establish her prices. She will need to know revenue and expenses so she can report her net income for personal income tax purposes, on an annual basis. If she borrows money, she will need financial statements so lenders can assess the liquidity, solvency, and profitability of the business. Natalie would also find financial statements useful to better understand her business and identify any financial issues as early as possible. Monthly financial statements would be best because they are more timely, but they are also more work to prepare.

CC1 (Continued)

(c) **Assets: Cash, Accounts Receivable, Supplies, Equipment, Prepaid Insurance**

Liabilities: Accounts Payable, Unearned Service Revenue, Notes Payable

Owner's Equity: Owner's Capital, Owner's Drawings

Revenue: Service Revenue

Expenses: Advertising Expense, Rent Expense, Utilities Expense

(d) **Natalie should have a separate bank account. This will make it easier to prepare financial statements for her business. The business is a separate entity from Natalie and must be accounted for separately.**

BYP 1-1 FINANCIAL REPORTING PROBLEM

(a) Apple's total assets at September 28, 2013 were $207,000 million and at September 29, 2012 were $176,064 million.

(b) Apple had $14,259 million of cash and cash equivalents at September 28, 2013.

(c) Apple had accounts payable totaling $22,367 million on September 28, 2013 and $21,175 million on September 29, 2012.

(d) Apple reports net sales for three consecutive years as follows:

2011	**$108,249 million**
2012	**$156,508 million**
2013	**$170,910 million**

(e) From 2012 to 2013, Apple's net income decreased $4,696 million from $41,733 million to $37,037 million.

BYP 1-2 COMPARATIVE ANALYSIS PROBLEM

(a)

(in millions)	PepsiCo	Coca-Cola
1. Total assets	$77,478	$90,055
2. Accounts receivable (net)	$6,954	$ 4,873
3. Net sales	$66,415	$46,854
4. Net income	$6,787	$ 8,626

(b) Coca-Cola's total assets were approximately 16% greater than PepsiCo's total assets, but PepsiCo's net sales were 42% greater than Coca-Cola's net sales. PepsiCo's accounts receivable were 42% greater than Coca-Cola's and represent 10% of its net sales. Coca-Cola's accounts receivable amount to 10% of its net sales. Both PepsiCo's and Coca-Cola's accounts receivable are at satisfactory levels.

Coca-Cola's net income is 27% greater than PepsiCo's. It appears that these two companies' operations are comparable in some ways, with Coca-Cola's operations significantly more profitable.

BYP 1-3 COMPARATIVE ANALYSIS PROBLEM

(a)

(in millions)	Amazon	Wal-Mart
1. Total assets	$40,159	$204,751
2. Accounts receivable (net)	$4,767	$6,677
3. Net sales	$60,903	$473,076
4. Net income (loss)	$274	$16,695

(b) Wal-Mart's total assets were approximately 510% greater than Amazon's total assets, and Wal-Mart's net sales were over 7 times greater than Amazon's net sales. Wal-Mart's accounts receivable were 140% greater than Amazon's and represent 1% of its net sales. Amazon's accounts receivable amount to approximately 8% of its net sales. Both Amazon's and Wal-Mart's accounts receivable are at satisfactory levels.

It appears that these two companies' operations are comparable in some ways, but Wal-Mart's operations are substantially more profitable.

BYP 1-4 REAL-WORLD FOCUS

(a) **The field is normally divided into three broad areas: auditing, financial/ tax, and management accounting.**

(b) **The skills required in these areas:**

People skills, sales skills, communication skills, analytical skills, ability to synthesize, creative ability, initiative, computer skills.

(c) **The skills required in these areas differ as follows:**

	Auditing	Financial and Tax	Management Accounting
People skills	Medium	Medium	Medium
Sales skills	Medium	Medium	Low
Communication skills	Medium	Medium	High
Analytical skills	High	Very High	High
Ability to synthesize	Medium	Low	High
Creative ability	Low	Medium	Medium
Initiative	Medium	Medium	Medium
Computer skills	High	High	Very High

(d) **Some key job options in accounting:**

Audit: Work in audit involves checking accounting ledgers and financial statements within corporations and government. This work is becoming increasingly computerized and can rely on sophisticated random sampling methods. Audit is the bread-and-butter work of accounting. This work can involve significant travel and allows you to really understand how money is being made in the company that you are analyzing. It's great background!

Budget Analysis: Budget analysts are responsible for developing and managing an organization's financial plans. There are plentiful jobs in this area in government and private industry. Besides quantitative skills many budget analyst jobs require good people skills because of negotiations involved in the work.

BYP 1-4 (Continued)

<u>Financial</u>: Financial accountants prepare financial statements based on general ledgers and participate in important financial decisions involving mergers and acquisitions, benefits/ERISA planning, and long-term financial projections. This work can be varied over time. One day you may be running spreadsheets. The next day you may be visiting a customer or supplier to set up a new account and discuss business. This work requires a good understanding of both accounting and finance.

<u>Management Accounting</u>: Management accountants work in companies and participate in decisions about capital budgeting and line of business analysis. Major functions include cost analysis, analysis of new contracts, and participation in efforts to control expenses efficiently. This work often involves the analysis of the structure of organizations. Is responsibility to spend money in a company at the right level of our organization? Are goals and objectives to control costs being communicated effectively? Historically, many management accountants have been derided as "bean counters." This mentality has undergone major change as management accountants now often work side by side with marketing and finance to develop new business.

<u>Tax</u>: Tax accountants prepare corporate and personal income tax statements and formulate tax strategies involving issues such as financial choice, how to best treat a merger or acquisition, deferral of taxes, when to expense items and the like. This work requires a thorough understanding of economics and the tax code. Increasingly, large corporations are looking for persons with both an accounting and a legal background in tax. A person, for example, with a JD and a CPA would be especially desirable to many firms.

(e) Junior Staff Accountant $40,000-$80,000

BYP 1-5 DECISION MAKING ACROSS THE ORGANIZATION

(a) **The estimate of the $6,100 loss was based on the difference between the $25,000 invested in the driving range and the bank balance of $18,900 at March 31. This is not a valid basis for determining income because it only shows the change in cash between two points in time.**

(b) **The balance sheet at March 31 is as follows:**

CHIP-SHOT DRIVING RANGE
Balance Sheet
March 31, 2017

Assets	
Cash	$18,900
Buildings	8,000
Equipment	800
Total assets	$27,700
Liabilities and Owner's Equity	
Liabilities	
Accounts payable ($100 + $120)	$ 220
Owner's equity	
Owner's capital ($27,700 – $220)	27,480
Total liabilities and owner's equity	$27,700

As shown in the balance sheet, the owner's capital at March 31 is $27,480. The estimate of $2,480 of net income is the difference between the initial investment of $25,000 and $27,480. This was not a valid basis for determining net income because changes in owner's equity between two points in time may have been caused by factors unrelated to net income. For example, there may be drawings and/or additional capital investments by the owner(s).

BYP 1-5 (Continued)

(c) **Actual net income for March can be determined by adding owner's drawings to the change in owner's capital during the month as shown below:**

Owner's capital, March 31, per balance sheet	**$27,480**
Owner's capital, March 1	**25,000**
Increase in owner's capital	**2,480**
Add: Drawings	**1,000**
Net income	**$ 3,480**

Alternatively, net income can be found by determining the revenues earned [described in (d) below] and subtracting expenses.

(d) **Revenues earned can be determined by adding expenses incurred during the month to net income. March expenses were Rent, $1,000; Wages, $400; Advertising, $750; and Utilities, $120 for a total of $2,270. Revenues earned, therefore, were $5,750 ($2,270 + $3,480). Alternatively, since all revenues are received in cash, revenues earned can be computed from an analysis of the changes in cash as follows:**

Beginning cash balance		**$25,000**
Less: Cash payments		
Caddy shack	**$8,000**	
Golf balls and clubs	**800**	
Rent	**1,000**	
Advertising	**650**	
Wages	**400**	
Drawings	**1,000**	**11,850**
Cash balance before revenues		**13,150**
Cash balance, March 31		**18,900**
Revenues earned		**$ 5,750**

BYP 1-6 COMMUNICATION ACTIVITY

To: Sandi Alcon
From: Student

I have received the balance sheet of New York Company as of December 31, 2017. A number of items in this balance sheet are not properly reported. They are:

1. **The balance sheet should be dated as of a specific date, not for a period of time. Therefore, it should be dated "December 31, 2017."**

2. **Equipment should be shown as an asset and reported below Supplies on the balance sheet.**

3. **Accounts receivable should be shown as an asset, not a liability, and reported between Cash and Supplies on the balance sheet.**

4. **Accounts payable should be shown as a liability, not an asset. The note payable is also a liability and should be reported in the liability section.**

5. **Liabilities <u>and</u> owner's equity should be shown on the balance sheet. Owner's capital and Owner's drawings are not liabilities.**

6. **Owner's capital and Owner's drawings are part of owner's equity. The drawings account is not reported on the balance sheet but is subtracted from Owner's capital to arrive at owner's equity at the end of the period.**

BYP 1-6 (Continued)

A correct balance sheet is as follows:

NEW YORK COMPANY
Balance Sheet
December 31, 2017

Assets	
Cash	$ 9,000
Accounts receivable	6,000
Supplies	2,000
Equipment	25,500
	$42,500
Liabilities and Owner's Equity	
Liabilities	
Notes payable	$10,500
Accounts payable	8,000
Total liabilities	18,500
Owner's equity	
Owner's capital ($26,000 – $2,000)	24,000
Total liabilities and owner's equity	$42,500

BYP 1-7 ETHICS CASE

(a) **The students should identify all of the stakeholders in the case; that is, all the parties that are affected, either beneficially or negatively, by the action or decision described in the case. The list of stakeholders in this case are:**

- **Travis Chase, interviewee.**
- **Both Baltimore firms.**
- **Great Northern College.**

(b) **The students should identify the ethical issues, dilemmas, or other considerations pertinent to the situation described in the case. In this case the ethical issues are:**

- **Is it proper that Travis charged both firms for the total travel costs rather than split the actual amount of $296 between the two firms?**
- **Is collecting $592 as reimbursement for total costs of $296 ethical behavior?**
- **Did Travis deceive both firms or neither firm?**

(c) **Each student must answer the question for himself/herself. Would you want to start your first job having deceived your employer before your first day of work? Would you be embarrassed if either firm found out that you double-charged? Would your school be embarrassed if your act was uncovered? Would you be proud to tell your professor that you collected your expenses twice?**

BYP 1-8 ALL ABOUT YOU

(a) Answers to the following will vary depending on students' opinions.

(1) This does not represent the hiding of assets, but rather a choice as to the order of use of assets. This would seem to be ethical.

(2) This does not represent the hiding of assets, but rather is a change in the nature of assets. Since the expenditure was necessary, although perhaps accelerated, it would seem to be ethical.

(3) This represents an intentional attempt to deceive the financial aid office. It would therefore appear to be both unethical and potentially illegal.

(4) This is a difficult issue. By taking the leave, actual net income would be reduced. The form asks the applicant to report actual net income. However, it is potentially deceptive since you do not intend on taking unpaid absences in the future, thus future income would be higher than reported income.

(b) Companies might want to overstate net income in order to potentially increase the stock price by improving investors' perceptions of the company. Also, a higher net income would make it easier to receive debt financing. Finally, managers would want a higher net income to increase the size of their bonuses.

(c) Sometimes companies want to report a lower income if they are negotiating with employees. For example, professional sports teams frequently argue that they can not increase salaries because they aren't making enough money. This also occurs in negotiations with unions. For tax accounting (as opposed to the financial accounting in this course) companies frequently try to minimize the amount of reported taxable income.

(d) Unfortunately many times people who are otherwise very ethical will make unethical decisions regarding financial reporting. They might be driven to do this because of greed. Frequently it is because their superiors have put pressure on them to take an unethical action, and they are afraid to not follow directions because they might lose their job. Also, in some instances top managers will tell subordinates that they should be a team player, and do the action because it would help the company, and therefore would help fellow employees.

BYP 1-9 FASB CODIFICATION ACTIVITY

No solution necessary

BYP1-10 CONSIDERING PEOPLE, PLANET, AND PROFIT

(a) **The 5 aspirations relate to the company's goals related to sustaining its business, its brands, its people, its community and the planet.**

(b) **i. Support sustainable food and agriculture: Purchased 170 million pounds of organic ingredients since the company's inception.**

ii. Embrace zero waste business practices: Caddies are 100% shrink-wrap free and made from 100% recycled paperboard.

iii. Promote climate action and renewable energy: Installed largest "smart" solar array in North America that provides nearly all of its electrical needs.

iv. Conserve natural resources, protect wild places: Planted 40,000 trees in partnership with American Forests.

IFRS EXERCISES

IFRS1-1

The International Accounting Standards Board, IASB, and the Financial Accounting Standards Board, FASB, are two key players in developing international accounting standards. The IASB releases international standards known as International Financial Reporting Standards (IFRS). The FASB releases U.S. standards, referred to a Generally Accepted Accounting Principles or GAAP.

IFRS1-2

A single set of high-quality accounting standards is needed because of increases in multinational corporations, mergers and acquisitions, use of information technology, and international financial markets.

IFRS1-3 INTERNATIONAL FINANCIAL REPORTING PROBLEM

(a) Ernst & Younget Autres; Deloitte & Associes
(b) 22, avenue Montaigne Paris, France 75008
(c) The company reports in Euros.

CHAPTER 2

LEARNING OBJECTIVES

1. **DESCRIBE HOW ACCOUNTS, DEBITS, AND CREDITS ARE USED TO RECORD BUSINESS TRANSACTIONS.**

2. **INDICATE HOW A JOURNAL IS USED IN THE RECORDING PROCESS.**

3. **EXPLAIN HOW A LEDGER AND POSTING HELP IN THE RECORDING PROCESS.**

4. **PREPARE A TRIAL BALANCE.**

CHAPTER REVIEW

The Account

1. (L.O. 1) An **account** is an individual accounting record of increases and decreases in a specific asset, liability, or owner's equity item.

2. In its simplest form, an account consists of (a) the title of the account, (b) a left or debit side, and (c) a right or credit side. The alignment of these parts resembles the letter T, and therefore the account form is called a **T-account.**

Debits and Credits

3. The terms **debit** and **credit** mean left and right, respectively.
   a. The act of entering an amount on the left side of an account is called **debiting** the account and making an entry on the right side is **crediting** the account.
   b. When the debit amounts exceed the credits, an account has a **debit balance;** when the reverse is true, the account has a **credit balance.**

4. In a **double-entry** system, equal debits and credits are made in the accounts for each transaction. Thus, the total debits will always equal the total credits.

5. The effects of debits and credits on **assets** and **liabilities** and the normal balances are:

Accounts	Debits	Credits	Normal Balance
Assets	Increase	Decrease	Debit
Liabilities	Decrease	Increase	Credit

6. Accounts are kept for each of the four subdivisions of owner's equity: capital, drawings, revenues, and expenses.

7. The effects of debits and credits on the owner's equity accounts and the normal balances are:

Accounts	Debits	Credits	Normal Balance
Owner's Capital	Decrease	Increase	Credit
Owner's Drawings	Increase	Decrease	Debit
Revenues	Decrease	Increase	Credit
Expenses	Increase	Decrease	Debit

8. The expanded accounting equation is:

   Assets = Liabilities + Owner's Capital – Owner's Drawings + Revenues – Expenses

The Journal

9. (L.O. 2) The basic steps in the recording process are:
   a. Analyze each transaction for its effect on the accounts.
   b. Enter the transaction information in a journal.
   c. Transfer the journal information to the appropriate accounts in the ledger.

10. Transactions are initially recorded in a journal.
    a. A journal is referred to as a book of original entry.
    b. A **general journal** is the most basic form of journal.

11. The journal makes several significant contributions to the recording process:
    a. It discloses in one place the complete effect of a transaction.
    b. It provides a chronological record of transactions.
    c. It helps to prevent or locate errors because the debit and credit amounts for each entry can be easily compared.

12. Entering transaction data in the journal is known as **journalizing.** When three or more accounts are required in one journal entry, the entry is known as a **compound entry.**

<u>The Ledger</u>

13. (L.O. 3) The ledger is the entire group of accounts maintained by a company. It keeps in one place all the information about changes in account balances and it is a source of useful data for management.

14. The **standard form of a ledger account** has three columns and the balance in the account is determined after each transaction.

15. **Posting** is the procedure of transferring journal entries to the ledger accounts. The following steps are used in posting:
    a. In the ledger, enter in the appropriate columns of the account(s) debited the date, journal page, and debit amount.
    b. In the reference column of the journal, write the account number to which the debit amount was posted.
    c. Perform the same steps in a. and b. for the credit amount.

<u>The Chart of Accounts</u>

16. A **chart of accounts** is a listing of the accounts and the account numbers which identify their location in the ledger. The numbering system usually starts with the balance sheet accounts and follows with the income statement accounts.

The Basic Steps

17. The basic steps in the recording process are illustrated as follows:

Transaction On September 4, Fesmire Inc. pays $3,000 cash to a creditor in full payment of the balance due.

Basic analysis The liability Accounts Payable is decreased $3,000, and the asset Cash is decreased $3,000.

Debit-credit analysis Debits decrease liabilities: debit Accounts Payable $3,000.
Credits decrease assets: credit Cash $3,000.

Journal entry

Sept. 4	Accounts Payable	201	3,000	
	Cash	101		3,000
	(Paid creditor in full)			

Posting

Cash	101
	Sept. 4 3,000

Accounts Payable	201
Sept. 4 3,000	

The Trial Balance

18. (L.O. 4) A **trial balance** is a list of accounts and their balances at a given time. The trial balance proves the mathematical equality of debits and credits after posting.

19. A trial balance does not prove that the company has recorded all transactions or that the ledger is correct because the trial balance may balance even when
    a. a transaction is not journalized.
    b. a correct journal entry is not posted.
    c. a journal entry is posted twice.
    d. incorrect accounts are used in journalizing or posting.
    e. offsetting errors are made in recording the amount of a transaction.

LECTURE OUTLINE

A. The Account.

An account is an individual accounting record of increases and decreases in a specific asset, liability, or owner's equity item.

An account consists of three parts:

1. A title.
2. A left or debit side.
3. A right or credit side.

B. Debits and Credits.

The terms debit and credit are directional signals: Debit indicates left, and credit indicates right.

1. Assets, drawings, and expenses are increased by debits and decreased by credits.
2. Liabilities, owner's capital, and revenues are increased by credits and decreased by debits.

C. Steps in the Recording Process.

There are three basic steps in the recording process:

1. Analyze each transaction for its effects on the accounts.
2. Enter the transaction information in a journal.

3. Transfer the journal information to the appropriate accounts in the ledger.

D. The General Journal/Journalizing.

Entering transaction data in the general journal is called journalizing.

The general journal:

1. Discloses in one place the complete effects of a transaction.

2. Provides a chronological record of transactions.

3. Helps to prevent or locate errors because the debit and credit amounts for each entry can be easily compared.

4. A simple journal entry involves only two accounts (one debit and one credit) whereas a compound journal entry involves three or more accounts.

E. The Ledger.

The ledger is the entire group of accounts maintained by a company. A general ledger contains all the assets, liabilities, and owner's equity accounts.

1. The ledger provides the balance in each of the accounts as well as keeps track of changes in these balances.

2. Companies arrange the ledger in the sequence in which they present the accounts in the financial statements, beginning with the balance sheet accounts.

F. Posting/Chart of Accounts.

1. Posting is transferring journal entries to the ledger accounts.

2. Posting involves the following steps:

a. In the ledger, in the appropriate columns of the account(s) debited, enter the date, journal page, and debit amount shown in the journal.

b. In the reference column of the journal, write the account number to which the debit amount was posted.

c. In the ledger, in the appropriate columns of the account(s) credited, enter the date, journal page, and credit amount shown in the journal.

d. In the reference column of the journal, write the account number to which the credit amount was posted.

3. A chart of accounts lists the accounts and the account numbers that identify their location in the ledger. Accounts are usually numbered starting with the balance sheet accounts followed by income statement accounts.

G. Trial Balance.

A trial balance is a list of accounts and their balances at a given time.

1. It proves the mathematical equity of debits and credits after posting.
2. It may also uncover errors in journalizing and posting.
3. It is useful the preparation of financial statements.

INVESTOR INSIGHT

Bank regulators fined Bank One Corporation (Now Chase) $1.8 million because they felt the reliability of the bank's accounting system caused it to violate regulatory requirements. The financial records of Waste Management Inc. were in such disarray that 10,000 employees were receiving pay slips that were in error.

In order for these companies to prepare and issue financial statements, their accounting equations must have been in balance at year-end. How could these errors or misstatements have occurred?

Answer: A company's accounting equation (its books) can be in balance yet its financial statements have errors or misstatements because of the following: entire transactions were not recorded, transactions were recorded at wrong amounts; transactions were recorded in the wrong accounts; transactions were recorded in the wrong accounting period. Audits of financial statements uncover some, but not all, errors or misstatements.

IFRS

A Look At IFRS

International companies use the same set of procedures and records to keep track of transaction data. Thus, the material in Chapter 2 dealing with the account, general rules of debit and credit, and steps in the recording process—the journal, ledger, and chart of accounts—is the same under both GAAP and IFRS.

KEY POINTS

Following are the key similarities and differences between GAAP and IFRS as related to the recording process:

- Transaction analysis is the same under IFRS and GAAP.
- Both the IASB and FASB go beyond the basic definitions provided in the textbook for the key elements of financial statements, that is, assets, liabilities, equity, revenue, and expenses.
- A trial balance under IFRS follows the same format as shown in the textbook.
- As shown in the textbook, dollar signs are typically used only in the trial balance and the financial statements. The same practice is followed under IFRS, using the currency of the country where the reporting company is headquartered.
- A trial balance under IFRS follows the same format as shown in the textbook.
- IFRS relies less on historical cost and more on fair value than do FASB standards.
- Internal controls are a system of checks and balances designed to prevent and detect fraud and errors. While most public U. S. companies have these systems in place, many non-U.S. companies have never completely documented the controls nor had an independent auditor attest to their effectiveness.

LOOKING TO THE FUTURE

The basic recording process shown in this textbook is followed by companies across the globe. It is unlikely to change in the future. The definitional structure of assets, liabilities, equity, revenues, and expenses may change over time as the IASB and FASB evaluate their overall conceptual framework for establishing accounting standards.

20 MINUTE QUIZ

Circle the correct answer.

True/False

1. Assets are increased by debits and liabilities are decreased by credits.

   True False

2. The owner's capital account is increased by credits.

   True False

3. An account will have a credit balance if the total debit amounts exceed the total credit amounts.

   True False

4. The ledger is the entire group of accounts maintained by a company.

   True False

5. The basic steps in the recording process are (1) to analyze each transaction, (2) to enter the transaction in a journal, and (3) to transfer the journal entry to the appropriate ledger accounts.

   True False

6. Transferring journal entries to the ledger accounts is called posting and should be performed in chronological order.

   True False

7. Assets = liabilities + owner's capital – drawings + revenues – expenses is a correct form of the expanded basic accounting equation.

   True False

8. In posting, one should enter "J2" in the Post. Ref. Column on page two of the journal.

   True False

9. When the columns of the trial balance equal each other, it proves no errors occurred in recording and posting.

   True False

10. The double-entry system helps ensure the accuracy of the recorded amounts and helps to detect errors.

    True False

Multiple Choice

1. Transactions are initially recorded in the
    a. general ledger.
    b. general journal.
    c. trial balance.
    d. balance sheet.

2. The right side of an account is referred to as the
    a. footing.
    b. chart side.
    c. debit side.
    d. credit side.

3. A purchase of equipment for cash requires a credit to
    a. Equipment.
    b. Cash.
    c. Accounts Payable.
    d. Owner's Capital.

4. The equality of the accounting equation can be proven by preparing a
    a. trial balance.
    b. journal.
    c. general ledger.
    d. T-account.

5. Which of the following accounts would be increased with a debit?
    a. Rent Payable
    b. Owner's Capital
    c. Service Revenue
    d. Owner's Drawings

ANSWERS TO QUIZ

True/False

1.	False	6.	True
2.	True	7.	True
3.	False	8.	False
4.	True	9.	False
5.	True	10.	True

Multiple Choice

1. b.
2. d.
3. b.
4. a.
5. d.

CHAPTER 2
SOLUTIONS TO PROBLEMS: SET B

PROBLEM 2-1B

J1

Date	Account Titles and Explanation	Ref.	Debit	Credit
Apr. 1	Cash		35,000	
	Owner's Capital			35,000
	(Owner's investment of cash in business)			
4	Land		27,000	
	Cash			27,000
	(Purchased land for cash)			
8	Advertising Expense		1,800	
	Accounts Payable			1,800
	(Incurred advertising expense on account)			
11	Salaries and Wages Expense		1,500	
	Cash			1,500
	(Paid salaries)			
12	No entry—Not a transaction.			
13	Prepaid Insurance		1,650	
	Cash			1,650
	(Paid for one-year insurance policy)			
17	Owner's Drawings		1,000	
	Cash			1,000
	(Withdrew cash for personal use)			
20	Cash		6,800	
	Service Revenue			6,800
	(Received cash for services performed)			

PROBLEM 2-1B (Continued)

Date	Account Titles and Explanation	Ref.	Debit	Credit
Apr. 25	Cash		2,500	
	Unearned Service Revenue			2,500
	(Received cash for future services)			
30	Cash		8,900	
	Service Revenue			8,900
	(Received cash for services performed)			
30	Accounts Payable		900	
	Cash			900
	(Paid creditor on account)			

PROBLEM 2-2B

(a)

J1

Date	Account Titles and Explanation	Ref.	Debit	Credit
May 1	Cash	101	20,000	
	Owner's Capital	301		20,000
	(Owner's investment of cash in business)			
2	No entry—not a transaction.			
3	Supplies	126	2,500	
	Accounts Payable	201		2,500
	(Purchased supplies on account)			
7	Rent Expense	729	900	
	Cash	101		900
	(Paid office rent)			
11	Accounts Receivable	112	3,200	
	Service Revenue	400		3,200
	(Billed client for services performed)			
12	Cash	101	3,500	
	Unearned Service Revenue	209		3,500
	(Received cash for future services)			
17	Cash	101	1,200	
	Service Revenue	400		1,200
	(Received cash for services performed)			
31	Salaries and Wages Expense	726	2,000	
	Cash	101		2,000
	(Paid salaries)			

PROBLEM 2-2B (Continued)

Date	Account Titles and Explanation	Ref.	Debit	Credit
May 31	Accounts Payable ($2,500 X 60%)..........	201	1,500	
	Cash	101		1,500
	(Paid creditor on account)			

(b)

Cash **No. 101**

Date	Explanation	Ref.	Debit	Credit	Balance
May 1		J1	20,000		20,000
7		J1		900	19,100
12		J1	3,500		22,600
17		J1	1,200		23,800
31		J1		2,000	21,800
31		J1		1,500	20,300

Accounts Receivable **No. 112**

Date	Explanation	Ref.	Debit	Credit	Balance
May 11		J1	3,200		3,200

Supplies **No. 126**

Date	Explanation	Ref.	Debit	Credit	Balance
May 3		J1	2,500		2,500

Accounts Payable **No. 201**

Date	Explanation	Ref.	Debit	Credit	Balance
May 3		J1		2,500	2,500
31		J1	1,500		1,000

Unearned Service Revenue **No. 209**

Date	Explanation	Ref.	Debit	Credit	Balance
May 12		J1		3,500	3,500

PROBLEM 2-2B (Continued)

Owner's Capital — **No. 301**

Date	Explanation	Ref.	Debit	Credit	Balance
May 1		J1		20,000	20,000

Service Revenue — **No. 400**

Date	Explanation	Ref.	Debit	Credit	Balance
May 11		J1		3,200	3,200
17		J1		1,200	4,400

Salaries and Wages Expense — **No. 726**

Date	Explanation	Ref.	Debit	Credit	Balance
May 31		J1	2,000		2,000

Rent Expense — **No. 729**

Date	Explanation	Ref.	Debit	Credit	Balance
May 7		J1	900		900

(c)

IRIS BECK, CPA
Trial Balance
May 31, 2017

	Debit	Credit
Cash	$20,300	
Accounts Receivable	3,200	
Supplies	2,500	
Accounts Payable		$ 1,000
Unearned Service Revenue		3,500
Owner's Capital		20,000
Service Revenue		4,400
Salaries and Wages Expense	2,000	
Rent Expense	900	
	$28,900	$28,900

PROBLEM 2-3B

(a) & (c)

Cash

Balance	8,000		
		(1)	1,000
		(3)	2,000
(4)	14,000		
		(5)	15,000
6)	6,000		
		(7)	3,500
		(8)	3,000
	3,500		

Accounts Receivable

Balance	15,000		
		(4)	14,000
(7)	9,000		
	10,000		

Supplies

Balance	13,000		
(2)	4,200		
	17,200		

Prepaid Rent

Balance	3,000		
	3,000		

Equipment

Balance	20,000		
	20,000		

Accounts Payable

		Balance	19,000
		(2)	4,200
(5)	15,000		
			8,200

Owner's Capital

		Balance	40,000
			40,000

Owner's Drawings

(8)	3,000		
	3,000		

Service Revenue

		(7)	15,000
			15,000

Advertising Expense

(1)	1,000		
	1,000		

Miscellaneous Expense

(3)	2,000		
	2,000		

Salaries and Wages Expense

(7)	3,500		
	3,500		

PROBLEM 2-3B (Continued)

(b)

Trans.	Account Titles and Explanation	Debit	Credit
1.	Advertising Expense	1,000	
	Cash		1,000
2.	Supplies	4,200	
	Accounts Payable		4,200
3.	Miscellaneous Expense	2,000	
	Cash		2,000
4.	Cash	14,000	
	Accounts Receivable		14,000
5.	Accounts Payable	15,000	
	Cash		15,000
6.	Cash	6,000	
	Accounts Receivable	9,000	
	Service Revenue		15,000
7.	Salaries and Wages Expense	3,500	
	Cash		3,500
8.	Owner's Drawings	3,000	
	Cash		3,000

PROBLEM 2-3B (Continued)

(d)

VIAN REPAIR SERVICE
Trial Balance
January 31, 2017

	Debit	Credit
Cash	$ 3,500	
Accounts Receivable	10,000	
Supplies	17,200	
Prepaid Rent	3,000	
Equipment	20,000	
Accounts Payable		$ 8,200
Owner's Capital		40,000
Owner's Drawings	3,000	
Service Revenue		15,000
Advertising Expense	1,000	
Miscellaneous Expense	2,000	
Salaries and Wages Expense	3,500	
	$63,200	$63,200

PROBLEM 2-4B

SEAN DEVINE COMPANY
Trial Balance
May 31, 2014

	Debit	Credit
Cash ($5,850 + $520 – $486)	$ 5,884	
Accounts Receivable ($2,570 – $210)	2,360	
Prepaid Insurance ($700 + $100)	800	
Supplies ($0 + $520)	520	
Equipment ($8,000 – $520)	7,480	
Accounts Payable ($4,500 – $100 + $520 – $210)		$ 4,710
Unearned Service Revenue		650
Owner's Capital ($11,700 + $1,000)		12,700
Owner's Drawings ($0 + $1,000)	1,000	
Service Revenue		6,960
Salaries and Wages Expense ($4,200 + $200)	4,400	
Advertising Expense ($1,100 + $486)	1,586	
Utilities Expense ($890 + $100)	990	
	$25,020	$25,020

PROBLEM 2-5B

(a) & (c)

Cash — **No. 101**

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 1	Balance	✓			4,000
2		J1		1,100	2,900
9		J1	2,800		5,700
10		J1		3,000	2,700
12		J1		500	2,200
25		J1	5,200		7,400
29		J1		2,000	5,400
30		J1	85		5,485
30		J1		1,200	4,285

Accounts Receivable — **No. 112**

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 30		J1	85		85

Prepaid Rent — **No. 136**

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 30		J1	1,200		1,200

Land — **No. 140**

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 1	Balance	✓			10,000

Buildings — **No. 145**

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 1	Balance	✓			8,000

PROBLEM 2-5B (Continued)

Equipment — No. 157

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 1	Balance	✓			6,000

Accounts Payable — No. 201

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 1	Balance	✓			2,000
10		J1	1,000		1,000
20		J1		1,000	2,000

Mortgage Payable — No. 275

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 1	Balance	✓			8,000
10		J1	2,000		6,000

Owner's Capital — No. 301

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 1	Balance	✓			18,000

Service Revenue — No. 400

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 9		J1		2,800	2,800
25		J1		5,200	8,000

Rent Revenue — No. 429

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 30		J1		170	170

PROBLEM 2-5B (Continued)

Advertising Expense — **No. 610**

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 12		J1	500		500

Salaries and Wages Expense — **No. 726**

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 29		J1	2,000		2,000

Rent Expense — **No. 729**

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 2		J1	1,100		1,100
20		J1	1,000		2,100

(b)

J1

Date	Account Titles and Explanation	Ref.	Debit	Credit
Apr. 2	Rent Expense	729	1,100	
	Cash	101		1,100
	(Paid film rental)			
3	No entry—not a transaction.			
9	Cash	101	2,800	
	Service Revenue	400		2,800
	(Received cash for services performed)			
10	Mortgage Payable	275	2,000	
	Accounts Payable	201	1,000	
	Cash	101		3,000
	(Made payments on mortgage and accounts payable)			

PROBLEM 2-5B (Continued)

Date	Account Titles and Explanation	Ref.	Debit	Credit
Apr. 11	No entry—not a transaction.			
12	Advertising Expense	610	500	
	Cash	101		500
	(Paid advertising expenses)			
20	Rent Expense	729	1,000	
	Accounts Payable	201		1,000
	(Rented film on account)			
25	Cash	101	5,200	
	Service Revenue	400		5,200
	(Received cash for services performed)			
29	Salaries and Wages Expense	726	2,000	
	Cash	101		2,000
	(Paid salaries expense)			
30	Cash	101	85	
	Accounts Receivable	112	85	
	Rent Revenue	429		170
	(17% X $1,000)			
	(Received cash and balance on account for rent revenue)			
30	Prepaid Rent	136	1,200	
	Cash	101		1,200
	(Paid cash for future film rentals)			

PROBLEM 2-5B (Continued)

(d)

CLASSIC THEATER
Trial Balance
April 30, 2017

	Debit	Credit
Cash	$ 4,285	
Accounts Receivable	85	
Prepaid Rent	1,200	
Land	10,000	
Buildings	8,000	
Equipment	6,000	
Accounts Payable		$ 2,000
Mortgage Payable		6,000
Owner's Capital		18,000
Service Revenue		8,000
Rent Revenue		170
Advertising Expense	500	
Salaries and Wages Expense	2,000	
Rent Expense	2,100	
	$34,170	$34,170

Weygandt Accounting Principles, 12e
Chapter Two
Solutions to Challenge Exercises

Challenge Exercise 2-1 – Solution

1.

1	**Cash………….. ....**	**25,000**	
	Owner's Capital		**25,000**
2	**No entry, not a transaction**		
3	**Equipment ....**	**2,900**	
	Cash…………………………………………………		**700**
	Accounts Payable		**2,200**
6	**Cash...**	**600**	
	Accounts Receivable	**3,000**	
	Service Revenue		**3,600**
27	**Accounts Payable ....**	**900**	
	Cash		**900**
30	**Salaries and Wages Expense.................................**	**2,300**	
	Cash		**2,300**
31	**Cash…. ....**	**1,200**	
	Accounts Receivable		**1,200**

2. The October 31 balance of Accounts Payable is $1,300 ($2,200 - $900), and would be reported in the liabilities section of the balance sheet.

3. The October 31 balance of Accounts Receivable is $1,800 ($3,000 - $1,200), and would be reported in the assets section of the balance sheet.

Challenge Exercise 2-2 – Solution

(a)

General Journal **J1**

Date		Account Titles	Ref.	Debit	Credit
Sept.	1	Cash	101	20,000	
		Owner's Capital	301		20,000
	5	Equipment	157	17,000	
		Cash	101		6,000
		Accounts Payable	201		11,000
	11	Cash	101	1,000	
		Accounts Receivable	112	2,900	
		Service Revenue	400		3,900
	25	Accounts Payable	201	7,000	
		Cash	101		7,000
	29	Owner's Drawings	306	600	
		Cash	101		600
	30	Cash	101	1,500	
		Accounts Receivable	112		1,500

(b)

Cash **No. 101**

Date		Explanation	Ref.	Debit	Credit	Balance
Sept.	1		J1	20,000		20,000
	5		J1		6,000	14,000
	11		J1	1,000		15,000
	25		J1		7,000	8,000
	29		J1		600	7,400
	30		J1	1,500		8,900

Accounts Receivable **No. 112**

Date	Explanation	Ref.	Debit	Credit	Balance
Sept. 11		J1	2,900		2,900
30		J1		1,500	1,400

Challenge Exercise 2-2 – Solution (Continued)

Equipment **No. 157**

Date	Explanation	Ref.	Debit	Credit	Balance
Sept. 5		J1	17,000		17,000

Accounts Payable **No. 201**

Date	Explanation	Ref.	Debit	Credit	Balance
Sept. 5		J1		11,000	11,000
25		J1	7,000		4,000

Owner's Capital **No. 301**

Date	Explanation	Ref.	Debit	Credit	Balance
Sept. 1		J1		20,000	20,000

Owner's Drawings **No. 306**

Date	Explanation	Ref.	Debit	Credit	Balance
Sept.29		J1	600		600

Service Revenue **No. 400**

Date	Explanation	Ref.	Debit	Credit	Balance
Sept. 11		J1		3,900	3,900

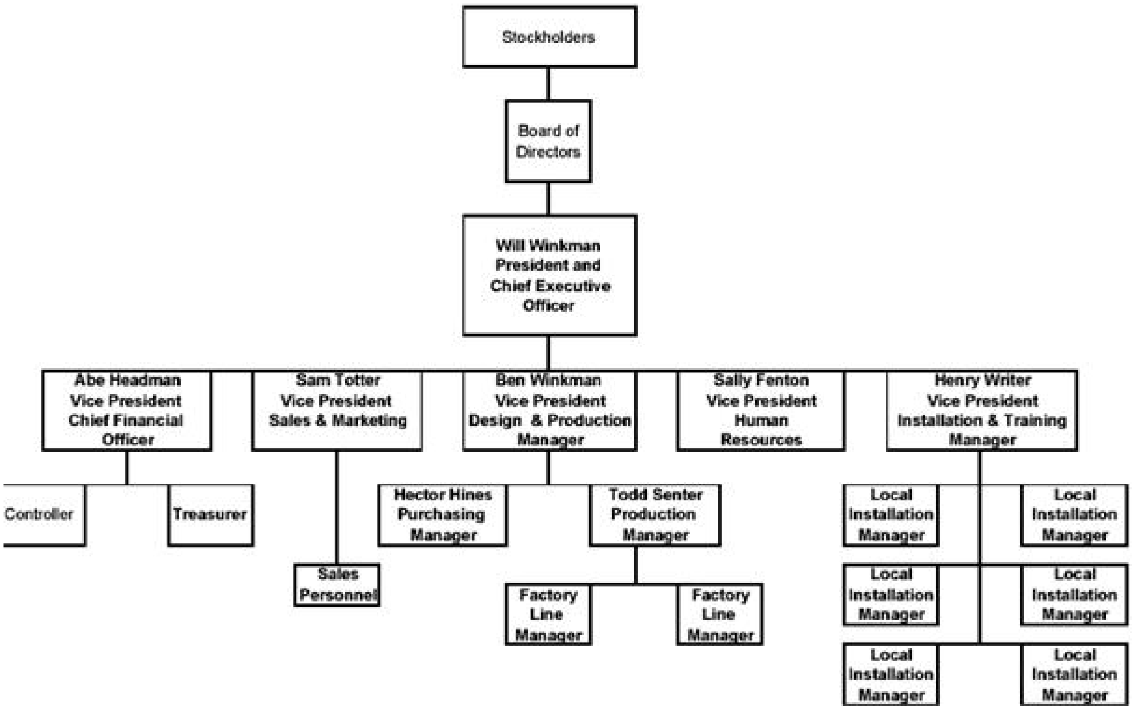
(c) Total assets would be $27,300 ($8,900 + $1.400 + $17,000).

(d) Total liabilities would be $4,000 (just accounts payable).

SOLUTION
Chapter 19 Waterways Continuing Problem

WCP19 (a)

ORGANIZATIONAL CHART



(b)

Waterways Corporation
Cost of Goods Manufactured Schedule
For the Month of November

Work in process 11/1			$ 52,900
Direct materials			
Raw materials inventory 11/1	$ 38,000		
Raw material purchases	185,400		
Total raw materials available for use	223,400		
Less: Raw materials inventory 11/30	52,700		
Direct materials used		$170,700	
Direct labor		22,000	
Manufacturing overhead			
Depreciation--factory equipment	16,800		
Factory supplies used	16,850		
Factory utilities	10,200		
Indirect labor	48,000		
Rent--factory equipment	47,000		
Repairs--factory equipment	4,200		
Total factory overhead		143,050	
Total manufacturing costs			335,750
Total cost of work in process			388,650
Less: Work in process 11/30			42,000
Cost of goods manufactured			$346,650

Waterways Corporation
Income Statement
For the Month of November

Sales			$1,350,000
Cost of goods sold			
Finished goods inventory 11/1		$ 72,550	
Cost of goods manufactured		346,650	
Cost of goods available for sale		419,200	
Less: Finished goods inventory 11/30		68,300	
Cost of goods sold			350,900
Gross profit			999,100
Operating expenses			
Selling expenses			
Advertising expenses		54,000	
Sales commissions		40,500	
Total selling expenses		94,500	
Administrative expenses			
Depreciation--office equipment	$ 2,500		
Office supplies expense	1,400		
Other administrative expenses	72,000		
Salaries	325,000		
Total administrative expenses		400,900	
Total operating expenses			495,400
Net income			$ 503,700

Waterways Corporation
Balance Sheet (partial)
November 30

Current assets		
Cash		$260,000
Accounts receivable		295,000
Inventories		
Raw materials inventory	$52,700	
Work in process inventory	42,000	
Finished goods inventory	68,300	163,000
Prepaid expenses		41,250
Total current assets		$759,250

CHAPTER 2

The Recording Process

ASSIGNMENT CLASSIFICATION TABLE

Learning Objectives	Questions	Brief Exercises	Do It!	Exercises	A Problems
1. Indicate how accounts, debits, and credits are used to record business transactions.	1, 2, 3, 4, 5, 6, 7, 8, 9, 19, 21	1, 2, 5	1	1, 2, 4, 6, 7, 14	1A, 2A, 3A, 5A
2. Indicate how a journal is used in the recording process.	10, 11, 12, 13, 14, 16	3, 4, 6	2	3, 5, 6, 7, 10, 11, 12	1A, 2A, 3A, 5A
3. Explain how a ledger and posting help in the recording process.	15, 17	7, 8	3	8, 9, 12	2A, 3A, 5A
4. Prepare a trial balance.	18, 20	9, 10	4	9, 10, 11, 13, 14	2A, 3A, 4A, 5A

ASSIGNMENT CHARACTERISTICS TABLE

Problem Number	Description	Difficulty Level	Time Allotted (min.)
1A	Journalize a series of transactions.	Simple	20–30
2A	Journalize transactions, post, and prepare a trial balance.	Simple	30–40
3A	Journalize transactions, post, and prepare a trial balance.	Moderate	40–50
4A	Prepare a correct trial balance.	Moderate	30–40
5A	Journalize transactions, post, and prepare a trial balance.	Moderate	40–50

WEYGANDT ACCOUNTING PRINCIPLES 12E
CHAPTER 2
THE RECORDING PROCESS

Number	LO	BT	Difficulty	Time (min.)
BE1	1	C	Simple	6–8
BE2	1	C	Simple	4–6
BE3	2	AP	Simple	4–6
BE4	2	C	Moderate	4–6
BE5	1	C	Simple	6–8
BE6	2	AP	Simple	4–6
BE7	3	AP	Simple	4–6
BE8	3	AP	Simple	4–6
BE9	4	AP	Simple	4–6
BE10	4	AN	Moderate	6–8
DI1	1	C	Simple	3–5
DI2	2	AP	Simple	3–5
DI3	3	AP	Simple	2–4
DI4	4	AP	Simple	6–8
EX1	1	K	Simple	2–4
EX2	1	C	Simple	10–15
EX3	2	AP	Simple	8–10
EX4	1	C	Simple	6–8
EX5	2	AP	Simple	6–8
EX6	1, 2	AP	Simple	6–8
EX7	1, 2	AP	Simple	8–10
EX8	3	K	Simple	2–4
EX9	3, 4	AP	Simple	10–12
EX10	2, 4	AP	Moderate	10–12
EX11	2, 4	AP	Moderate	12–15
EX12	2, 3	AP	Moderate	12–15
EX13	4	AN	Moderate	6–8
EX14	1, 4	AP	Simple	8–10

THE RECORDING PROCESS (Continued)

Number	LO	BT	Difficulty	Time (min.)
P1A	1, 2	AP	Simple	20–30
P2A	1, 2, 3, 4	AP	Simple	30–40
P3A	1, 2, 3, 4	AP	Moderate	40–50
P4A	4	AN	Moderate	30–40
P5A	1, 2, 3, 4	AP	Moderate	40–50
BYP1	1	C	Simple	8–10
BYP2	1, 2	AN	Simple	8–10
BYP3	—	AP	Simple	15–20
BYP4	—	AP, S	Simple	15–20
BYP5	3, 4	AP, S	Moderate	20–30
BYP6	4	AN, E	Moderate	10–15
BYP7	—	E	Moderate	10–15
BYP8	—	E	Moderate	15–20
BYP9	—	E	Moderate	15–20
BYP10	—	E	Moderate	20–30

Correlation Chart between Bloom's Taxonomy, Learning Objectives and End-of-Chapter Exercises and Problems

Learning Objective	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
1. Describe how accounts, debits, and credits are used to record business transactions.	Q2-1 Q2-21 E2-1	Q2-2 Q2-8 DI2-1 Q2-3 Q2-9 E2-2 Q2-4 Q2-19 E2-4 Q2-5 BE2-1 Q2-6 BE2-2 Q2-7 BE2-5	E2-6 P2-1A P2-5A E2-7 P2-2A E2-14 P2-3A			
2. Indicate how a journal is used in the recording process.	Q2-10 Q2-12	Q2-11 Q2-13 Q2-14 BE2-4	Q2-16 E2-5 E2-12 BE2-3 E2-6 P2-1A BE2-6 E2-7 P2-2A DI2-2 E2-10 P2-3A E2-3 E2-11 P2-5A			
3. Explain how a ledger and posting help in the recording process.	E2-8	Q2-15 Q2-17	BE2-7 E2-9 P2-3A BE2-8 E2-12 P2-5A DI2-3 P2-2A			
4. Prepare a trial balance.		Q2-18 Q2-20	BE2-9 E2-10 P2-2A DI2-4 E2-11 P2-3A E2-9 E2-14 P2-5A	BE2-10 E2-13 P2-4A		
Broadening Your Perspective		Financial Reporting	Real-World Focus	Comparative Analysis Ethics Case	Communication Decision Making Across the Organization Real-World Focus	All About You Ethics Case Considering P, P, and P

ANSWERS TO QUESTIONS

1. A T account has the following parts: (a) the title, (b) the left or debit side, and (c) the right or credit side.

2. Disagree. The terms debit and credit mean left and right respectively.

3. Heath is incorrect. The double-entry system merely records the dual effect of a transaction on the accounting equation. A transaction is not recorded twice; it is recorded once, with a dual effect.

4. Erica is incorrect. A debit balance only means that debit amounts exceed credit amounts in an account. Conversely, a credit balance only means that credit amounts are greater than debit amounts in an account. Thus, a debit or credit balance is neither favorable nor unfavorable.

5. (a) Asset accounts are increased by debits and decreased by credits.
(b) Liability accounts are decreased by debits and increased by credits.
(c) Revenues and owner's capital are increased by credits and decreased by debits. Expenses and owner's drawing are increased by debits and decreased by credits.

6. (a) Accounts Receivable—debit balance.
(b) Cash—debit balance.
(c) Owner's Drawings—debit balance.
(d) Accounts Payable—credit balance.
(e) Service Revenue—credit balance.
(f) Salaries and Wages Expense—debit balance.
(g) Owner's Capital—credit balance.

7. (a) Accounts Receivable—asset—debit balance.
(b) Accounts Payable—liability—credit balance
(c) Equipment—asset—debit balance.
(d) Owner's Drawings—owner's equity—debit balance.
(e) Supplies—asset—debit balance.

8. (a) Debit Supplies and credit Accounts Payable.
(b) Debit Cash and credit Notes Payable.
(c) Debit Salaries and Wages Expense and credit Cash.

9. (1) Cash—both debit and credit entries.
(2) Accounts Receivable—both debit and credit entries.
(3) Owner's Drawings—debit entries only.
(4) Accounts Payable—both debit and credit entries.
(5) Salaries and Wages Expense—debit entries only.
(6) Service Revenue—credit entries only.

10. The basic steps in the recording process are:
(1) Analyze each transaction for its effect on the accounts.
(2) Enter the transaction information in a journal.
(3) Transfer the journal information to the appropriate accounts in the ledger.

11. The advantages of using the journal in the recording process are:
(1) It discloses in one place the complete effects of a transaction.
(2) It provides a chronological record of all transactions.
(3) It helps to prevent or locate errors because the debit and credit amounts for each entry can be easily compared.

12. (a) The debit should be entered first.
(b) The credit should be indented.

13. When three or more accounts are required in one journal entry, the entry is referred to as a compound entry. An example of a compound entry is the purchase of equipment, part of which is paid for with cash and the remainder is on account.

14. (a) No, debits and credits should not be recorded directly in the ledger.
(b) The advantages of using the journal are:
1. It discloses in one place the complete effects of a transaction.
2. It provides a chronological record of all transactions.
3. It helps to prevent or locate errors because the debit and credit amounts for each entry can be easily compared.

15. The advantage of the last step in the posting process is to indicate that the item has been posted.

16.

		Debit	Credit
(a)	Cash	9,000	
	Owner's Capital		9,000
	(Invested cash in the business)		
(b)	Prepaid Insurance	800	
	Cash		800
	(Paid one-year insurance policy)		
(c)	Supplies	2,000	
	Accounts Payable		2,000
	(Purchased supplies on account)		
(d)	Cash	7,500	
	Service Revenue		7,500
	(Received cash for services performed)		

17. (a) The entire group of accounts maintained by a company, including all the asset, liability, and owner's equity accounts, is referred to collectively as the ledger.
(b) A chart of accounts is a list of accounts and the account numbers that identify their location in the ledger. The chart of accounts is important, particularly for a company that has a large number of accounts, because it helps organize the accounts and define the level of detail that a company desires in its accounting system.

18. A trial balance is a list of accounts and their balances at a given time. The primary purpose of a trial balance is to prove (check) that the debits equal the credits after posting. A trial balance also facilitates the discovery of errors in journalizing and posting. In addition, it is useful in preparing financial statements.

19. No, Victor is not correct. The proper sequence is as follows:
(b) Business transaction occurs.
(c) Information entered in the journal.
(a) Debits and credits posted to the ledger.
(e) Trial balance is prepared.
(d) Financial statements are prepared.

20. (a) The trial balance would balance.
(b) The trial balance would not balance.

21. The normal balances are Cash debit, Accounts Payable credit, and Interest Expense debit.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 2-1

		(a) Debit Effect	(b) Credit Effect	(c) Normal Balance
1.	Accounts Payable	Decrease	Increase	Credit
2.	Advertising Expense	Increase	Decrease	Debit
3.	Service Revenue	Decrease	Increase	Credit
4.	Accounts Receivable	Increase	Decrease	Debit
5.	Owner's Capital	Decrease	Increase	Credit
6.	Owner's Drawings	Increase	Decrease	Debit

BRIEF EXERCISE 2-2

	Account Debited	Account Credited
June 1	Cash	Owner's Capital
2	Equipment	Accounts Payable
3	Rent Expense	Cash
12	Accounts Receivable	Service Revenue

BRIEF EXERCISE 2-3

June 1	Cash	5,000	
	Owner's Capital		5,000
2	Equipment	2,400	
	Accounts Payable		2,400
3	Rent Expense	800	
	Cash		800
12	Accounts Receivable	300	
	Service Revenue		300

BRIEF EXERCISE 2-4

The basic steps in the recording process are:

1. **Analyze each transaction. In this step, business documents are examined to determine the effects of the transaction on the accounts.**

2. **Enter each transaction in a journal. This step is called journalizing and it results in making a chronological record of the transactions.**

3. **Transfer journal information to ledger accounts. This step is called posting. Posting makes it possible to accumulate the effects of journalized transactions on individual accounts.**

BRIEF EXERCISE 2-5

		(a) Effect on Accounting Equation	(b) Debit-Credit Analysis
Aug.	1	The asset Cash is increased; the owner's equity account Owner's Capital is increased.	Debits increase assets: debit Cash $8,000. Credits increase owner's equity: credit Owner's Capital $8,000.
	4	The asset Prepaid Insurance is increased; the asset Cash is decreased.	Debits increase assets: debit Prepaid Insurance $1,800. Credits decrease assets: credit Cash $1,800.
	16	The asset Cash is increased; the revenue Service Revenue is increased.	Debits increase assets: debit Cash $3,600. Credits increase revenues: credit Service Revenue $3,600.
	27	The expense Salaries and Wages Expense is increased; the asset Cash is decreased.	Debits increase expenses: debit Salaries and Wages Expense $1,000. Credits decrease assets: credit Cash $1,000.

BRIEF EXERCISE 2-6

Aug.	1	Cash	8,000	
		Owner's Capital		8,000
	4	Prepaid Insurance	1,800	
		Cash		1,800
	16	Cash	3,600	
		Service Revenue		3,600
	27	Salaries and Wages Expense	1,000	
		Cash		1,000

BRIEF EXERCISE 2-7

Cash

5/12	2,400		
5/15	3,000		
Ending Bal.	5,400		

Service Revenue

		5/5	4,400
		5/15	3,000
		Ending Bal.	7,400

Accounts Receivable

5/5	4,400	5/12	2,400
Ending Bal.	2,000		

BRIEF EXERCISE 2-8

Cash

Date		Explanation	Ref.	Debit	Credit	Balance
May	12		J1	2,400		2,400
	15		J1	3,000		5,400

BRIEF EXERCISE 2-8 (Continued)

Accounts Receivable

Date	Explanation	Ref.	Debit	Credit	Balance
May 5		J1	4,400		4,400
12		J1		2,400	2,000

Service Revenue

Date	Explanation	Ref.	Debit	Credit	Balance
May 5		J1		4,400	4,400
15		J1		3,000	7,400

BRIEF EXERCISE 2-9

AMARO COMPANY
Trial Balance
June 30, 2017

	Debit	Credit
Cash	$ 5,800	
Accounts Receivable	3,000	
Equipment	17,000	
Accounts Payable		$ 8,100
Owner's Capital		15,000
Owner's Drawings	1,200	
Service Revenue		10,000
Salaries and Wages Expense	5,100	
Rent Expense	1,000	
	$33,100	$33,100

BRIEF EXERCISE 2-10

CAPPSHAW COMPANY
Trial Balance
December 31, 2017

	Debit	Credit
Cash	$10,800	
Prepaid Insurance	3,500	
Accounts Payable		$ 3,000
Unearned Service Revenue		2,200
Owner's Capital		9,000
Owner's Drawings	4,500	
Service Revenue		25,600
Salaries and Wages Expense	18,600	
Rent Expense	2,400	
	$39,800	$39,800

SOLUTIONS FOR DO IT! REVIEW EXERCISES

DO IT! 2-1

Tom would likely need the following accounts in which to record the transactions necessary to ready his photography studio for opening day:

Cash (debit balance)	Equipment (debit balance)
Supplies (debit balance)	Accounts Payable (credit balance)
Notes Payable (credit balance)	Owner's Capital (credit balance)

DO IT! 2-2

Each transaction that is recorded is entered in the general journal. The three activities would be recorded as follows:

		Debit	Credit
1.	Cash	6,300	
	Owner's Capital		6,300
2.	Supplies	1,100	
	Cash		400
	Accounts Payable		700

3. No entry because no transaction has occurred.

DO IT! 2-3

Cash			
4/1	1,600	4/16	700
4/3	3,400	4/20	250
4/30	4,050		

DO IT! 2-4

CARLAND COMPANY
Trial Balance
December 31, 2017

	Debit	Credit
Cash	$ 6,000	
Accounts Receivable	8,000	
Supplies	6,000	
Equipment	80,000	
Notes Payable		$ 20,000
Accounts Payable		11,000
Salaries and Wages Payable		3,000
Owner's Capital		28,000
Owner's Drawings	8,000	
Service Revenue		88,000
Rent Expense	4,000	
Salaries and Wages Expense	38,000	
	$150,000	$150,000

SOLUTIONS TO EXERCISES

EXERCISE 2-1

1. **False. An account is an accounting record of a specific asset, liability, *or owner's equity item*.**

2. **False. An account shows *increases and decreases* in the item it relates to.**

3. **False. Each asset, liability, and *owner's* equity item *has a separate account*.**

4. **False. An account has a left, or *debit* side, and a right, or *credit* side.**

5. **True.**

EXERCISE 2-2

	Account Debited				Account Credited			
Transaction	(a) Basic Type	(b) Specific Account	(c) Effect	(d) Normal Balance	(a) Basic Type	(b) Specific Account	(c) Effect	(d) Normal Balance
Jan. 2	Asset	Cash	Increase	Debit	Owner's Equity	Owner's Capital	Increase	Credit
3	Asset	Equipment	Increase	Debit	Asset	Cash	Decrease	Debit
9	Asset	Supplies	Increase	Debit	Liability	Accounts Payable	Increase	Credit
11	Asset	Accounts Receivable	Increase	Debit	Owner's Equity	Service Revenue	Increase	Credit
16	Owner's Equity	Advertising Expense	Increase	Debit	Asset	Cash	Decrease	Debit
20	Asset	Cash	Increase	Debit	Asset	Accounts Receivable	Decrease	Debit
23	Liability	Accounts Payable	Decrease	Credit	Asset	Cash	Decrease	Debit
28	Owner's Equity	Owner's Drawings	Increase	Debit	Asset	Cash	Decrease	Debit

EXERCISE 2-3

Date		General Journal Account Titles and Explanation	Ref.	Debit	J1 Credit
Jan.	2	Cash		10,000	
		Owner's Capital			10,000
	3	Equipment		3,000	
		Cash			3,000
	9	Supplies		500	
		Accounts Payable			500
	11	Accounts Receivable		2,400	
		Service Revenue			2,400
	16	Advertising Expense		350	
		Cash			350
	20	Cash		700	
		Accounts Receivable			700
	23	Accounts Payable		300	
		Cash			300
	28	Owner's Drawings		1,000	
		Cash			1,000

EXERCISE 2-4

Oct. 1 Debits increase assets: debit Cash $15,000.
Credits increase owner's equity: credit Owner's Capital $15,000.

2 No transaction.

3 Debits increase assets: debit Equipment $1,900.
Credits increase liabilities: credit Accounts Payable $1,900.

EXERCISE 2-4 (Continued)

Oct. 6 Debits increase assets: debit Accounts Receivable $3,800.
Credits increase revenues: credit Service Revenue $3,800.

27 Debits decrease liabilities: debit Accounts Payable $1,100.
Credits decrease assets: credit Cash $1,100.

30 Debits increase expenses: debit Salaries and Wages Expense $2,500.
Credits decrease assets: credit Cash $2,500.

EXERCISE 2-5

General Journal

Date	Account Titles and Explanation	Ref.	Debits	Credit
Oct. 1	Cash		15,000	
	Owner's Capital			15,000
2	No entry.			
3	Equipment		1,900	
	Accounts Payable			1,900
6	Accounts Receivable		3,800	
	Service Revenue......................			3,800
27	Accounts Payable		1,100	
	Cash			1,100
30	Salaries and Wages Expense		2,500	
	Cash			2,500

EXERCISE 2-6

(a) 1. Increase the asset Cash, increase the liability Notes Payable.
2. Increase the asset Equipment, decrease the asset Cash.
3. Increase the asset Supplies, increase the liability Accounts Payable.

(b)

1.	Cash	5,000	
	Notes Payable		5,000
2.	Equipment	3,100	
	Cash		3,100
3.	Supplies	850	
	Accounts Payable		850

EXERCISE 2-7

(a)

	Assets	= Liabilities +	Owner's Equity
1.	+	+	(Investment)
2.	–	–	(Expense)
3.	+	+	(Revenue)
4.	–	–	(Drawings)

(b)

1.	Cash	4,000	
	Owner's Capital		4,000
2.	Rent Expense	840	
	Cash		840
3.	Accounts Receivable	5,200	
	Service Revenue		5,200
4.	Owner's Drawings	750	
	Cash		750

EXERCISE 2-8

1. False. The general ledger contains all the asset, liability, ***and owner's equity*** accounts.
2. True.
3. False. The accounts in the general ledger are arranged in ***financial statement order:*** first the assets, then the liabilities, owner's capital, owner's drawings, revenues, and expenses.
4. True.
5. False. The general ledger is not a book of original entry; transactions are first recorded in the general journal, then in the general ledger.

EXERCISE 2-9

(a)

Cash

Aug. 1	5,000	Aug. 12	2,300
10	2,600		
31	900		
Bal.	6,200		

Notes Payable

		Aug. 12	2,700

Owner's Capital

		Aug. 1	5,000

Accounts Receivable

Aug. 25	1,700	Aug. 31	900
Bal.	800		

Service Revenue

		Aug. 10	2,600
		25	1,700
		Bal.	4,300

Equipment

Aug. 12	5,000		

(b)

JUNE FELDMAN, INVESTMENT BROKER
Trial Balance
August 31, 2017

	Debit	Credit
Cash	$ 6,200	
Accounts Receivable	800	
Equipment	5,000	
Notes Payable		$ 2,700
Owner's Capital		5,000
Service Revenue		4,300
	$12,000	$12,000

EXERCISE 2-10

(a)

General Journal

Date		Account Titles and Explanation	Ref.	Debit	Credit
Apr.	1	Cash		12,000	
		Owner's Capital			12,000
		(Owner's investment of cash in business)			
	12	Cash		900	
		Service Revenue			900
		(Received cash for services performed)			
	15	Salaries and Wages Expense		1,300	
		Cash			1,300
		(Paid salaries to date)			
	25	Accounts Payable		1,500	
		Cash			1,500
		(Paid creditors on account)			
	29	Cash		400	
		Accounts Receivable			400
		(Received cash in payment of account)			
	30	Cash		1,000	
		Unearned Service Revenue			1,000
		(Received cash for future services)			

EXERCISE 2-10 (Continued)

(b)

DAGGETT LANDSCAPING COMPANY
Trial Balance
April 30, 2017

	Debit	Credit
Cash	$11,500	
Accounts Receivable	2,800	
Supplies	1,800	
Accounts Payable		$ 300
Unearned Service Revenue		1,000
Owner's Capital		12,000
Service Revenue		4,100
Salaries and Wages Expense	1,300	
	$17,400	$17,400

EXERCISE 2-11

			Debit	Credit
(a)	Oct. 1	Cash	3,000	
		Owner's Capital		3,000
		(Owner's investment of cash in business)		
	10	Cash	750	
		Service Revenue		750
		(Received cash for services performed)		
	10	Cash	4,000	
		Notes Payable		4,000
		(Obtained loan from bank)		
	20	Cash	500	
		Accounts Receivable		500
		(Received cash in payment of account)		
	20	Accounts Receivable	940	
		Service Revenue		940
		(Billed clients for services performed)		

EXERCISE 2-11 (Continued)

(b)

SHUMWAY CO.
Trial Balance
October 31, 2017

	Debit	Credit
Cash	$ 7,200	
Accounts Receivable	1,240	
Supplies	400	
Equipment	2,000	
Notes Payable		$ 4,000
Accounts Payable		500
Owner's Capital		5,000
Owner's Drawings	300	
Service Revenue		2,490
Salaries and Wages Expense	500	
Rent Expense	350	
	$11,990	$11,990

EXERCISE 2-12

(a)

General Journal J1

Date	Account Titles and Explanation	Ref.	Debit	Credit
Sept. 1	Cash	101	10,000	
	Owner's Capital	301		10,000
5	Equipment	157	12,000	
	Cash	101		4,000
	Accounts Payable	201		8,000
25	Accounts Payable	201	3,000	
	Cash	101		3,000
30	Owner's Drawings	306	700	
	Cash	101		700

EXERCISE 2-12 (Continued)

(b)

Cash — **No. 101**

Date	Explanation	Ref.	Debit	Credit	Balance
Sept. 1		J1	10,000		10,000
5		J1		4,000	6,000
25		J1		3,000	3,000
30		J1		700	2,300

Equipment — **No. 157**

Date	Explanation	Ref.	Debit	Credit	Balance
Sept. 5		J1	12,000		12,000

Accounts Payable — **No. 201**

Date	Explanation	Ref.	Debit	Credit	Balance
Sept. 5		J1		8,000	8,000
25		J1	3,000		5,000

Owner's Capital — **No. 301**

Date	Explanation	Ref.	Debit	Credit	Balance
Sept. 1		J1		10,000	10,000

Owner's Drawings — **No. 306**

Date	Explanation	Ref.	Debit	Credit	Balance
Sept. 30		J1	700		700

EXERCISE 2-13

Error	(a) In Balance	(b) Difference	(c) Larger Column
1.	No	$525	Debit
2.	Yes	—	—
3.	Yes	—	—
4.	No	415	Credit
5.	Yes	—	—
6.	No	27	Debit

EXERCISE 2-14

OVERNITE DELIVERY SERVICE
Trial Balance
July 31, 2017

	Debit	Credit
Cash ($78,821 – Debit total without Cash $66,340)	$12,481	
Accounts Receivable	7,642	
Prepaid Insurance	1,968	
Equipment	49,360	
Notes Payable		$17,000
Accounts Payable		8,396
Salaries and Wages Payable		815
Owner's Capital		42,000
Owner's Drawings	700	
Service Revenue		10,610
Salaries and Wages Expense	4,428	
Maintenance and Repairs Expense	961	
Gasoline Expense	758	
Utilities Expense	523	
	$78,821	$78,821

SOLUTIONS TO PROBLEMS

PROBLEM 2-1A

J1

Date		Account Titles and Explanation	Ref.	Debit	Credit
Mar.	1	Cash		20,000	
		Owner's Capital			20,000
		(Owner's investment of cash in business)			
	3	Land		12,000	
		Buildings		2,000	
		Equipment		1,000	
		Cash			15,000
		(Purchased Rainbow's Golf Land)			
	5	Advertising Expense		900	
		Cash			900
		(Paid for advertising)			
	6	Prepaid Insurance		600	
		Cash			600
		(Paid for one-year insurance policy)			
	10	Equipment		1,050	
		Accounts Payable			1,050
		(Purchased equipment on account)			
	18	Cash		1,100	
		Service Revenue			1,100
		(Received cash for services performed)			
	19	Cash		1,500	
		Unearned Service Revenue			1,500
		(Received cash for coupon books sold)			

PROBLEM 2-1A (Continued)

Date	Account Titles and Explanation	Ref.	Debit	Credit
Mar. 25	Owner's Drawings		800	
	Cash			800
	(Withdrew cash for personal use)			
30	Salaries and Wages Expense		250	
	Cash			250
	(Paid salaries)			
30	Accounts Payable		1,050	
	Cash			1,050
	(Paid creditor on account)			
31	Cash		2,700	
	Service Revenue			2,700
	(Received cash for services performed)			

PROBLEM 2-2A

(a)

J1

Date		Account Titles and Explanation	Ref.	Debit	Credit
Apr.	1	Cash..	101	20,000	
		Owner's Capital	301		20,000
		(Owner's investment of cash in business)			
	1	No entry—not a transaction.			
	2	Rent Expense.......................................	729	1,100	
		Cash	101		1,100
		(Paid monthly office rent)			
	3	Supplies..	126	4,000	
		Accounts Payable.........................	201		4,000
		(Purchased supplies on account from Dazzle Company)			
	10	Accounts Receivable............................	112	5,100	
		Service Revenue...........................	400		5,100
		(Billed clients for services performed)			
	11	Cash..	101	1,000	
		Unearned Service Revenue...........	209		1,000
		(Received cash for future service)			
	20	Cash..	101	2,100	
		Service Revenue...........................	400		2,100
		(Received cash for services performed)			
	30	Salaries and Wages Expense................	726	2,800	
		Cash	101		2,800
		(Paid monthly salary)			

PROBLEM 2-2A (Continued)

Date	Account Titles and Explanation	Ref.	Debits	Credit
Apr. 30	Accounts Payable	201	2,400	
	Cash	101		2,400
	(Paid Dazzle Company on account)			

(b)

Cash — No. 101

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 1		J1	20,000		20,000
2		J1		1,100	18,900
11		J1	1,000		19,900
20		J1	2,100		22,000
30		J1		2,800	19,200
30		J1		2,400	16,800

Accounts Receivable — No. 112

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 10		J1	5,100		5,100

Supplies — No. 126

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 3		J1	4,000		4,000

Accounts Payable — No. 201

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 3		J1		4,000	4,000
30		J1	2,400		1,600

Unearned Service Revenue — No. 209

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 11		J1		1,000	1,000

PROBLEM 2-2A (Continued)

Owner's Capital **No. 301**

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 1		J1		20,000	20,000

Service Revenue **No. 400**

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 10		J1		5,100	5,100
20		J1		2,100	7,200

Salaries and Wages Expense **No. 726**

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 30		J1	2,800		2,800

Rent Expense **No. 729**

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 2		J1	1,100		1,100

(c)

EMILY VALLEY, DENTIST
Trial Balance
April 30, 2017

	Debit	Credit
Cash	$16,800	
Accounts Receivable	5,100	
Supplies	4,000	
Accounts Payable		$ 1,600
Unearned Service Revenue		1,000
Owner's Capital		20,000
Service Revenue		7,200
Salaries and Wages Expense	2,800	
Rent Expense	1,100	
	$29,800	$29,800

PROBLEM 2-3A

(a)

Trans.	Account Titles and Explanation	Debit	Credit
1.	Cash	40,000	
	Owner's Capital		40,000
2.	No entry—Not a transaction.		
3.	Prepaid Rent	24,000	
	Cash		24,000
4.	Equipment	30,000	
	Cash		10,000
	Accounts Payable		20,000
5.	Prepaid Insurance	1,800	
	Cash		1,800
6.	Supplies	420	
	Cash		420
7.	Supplies	1,500	
	Accounts Payable		1,500
8.	Cash	8,000	
	Accounts Receivable	12,000	
	Service Revenue		20,000
9.	Accounts Payable	400	
	Cash		400
10.	Cash	3,000	
	Accounts Receivable		3,000
11.	Utilities Expense	380	
	Accounts Payable		380

PROBLEM 2-3A (Continued)

Trans.	Account Titles and Explanation	Debit	Credit
12.	Salaries and Wages Expense.........	6,100	
	Cash		6,100

(b)

Cash

(1)	40,000		
		(3)	24,000
		(4)	10,000
		(5)	1,800
		(6)	420
(8)	8,000		
		(9)	400
(10)	3,000		
		(12)	6,100
	8,280		

Equipment

(4)	30,000		
	30,000		

Accounts Payable

		(4)	20,000
		(7)	1,500
(9)	400		
		(11)	380
			21,480

Accounts Receivable

(8)	12,000		
		(10)	3,000
	9,000		

Owner's Capital

		(1)	40,000
			40,000

Service Revenue

		(8)	20,000
			20,000

Supplies

(6)	420		
(7)	1,500		
	1,920		

Salaries and Wages Expense

(12)	6,100		
	6,100		

Prepaid Insurance

(5)	1,800		
	1,800		

Utilities Expense

(11)	380		
	380		

Prepaid Rent

(3)	24,000		
	24,000		

PROBLEM 2-3A (Continued)

(c)

MAQUOKETA SERVICES
Trial Balance
May 31, 2017

	Debit	Credit
Cash	$ 8,280	
Accounts Receivable	9,000	
Supplies	1,920	
Prepaid Insurance	1,800	
Prepaid Rent	24,000	
Equipment	30,000	
Accounts Payable		$21,480
Owner's Capital		40,000
Service Revenue		20,000
Salaries and Wages Expense	6,100	
Utilities Expense	380	
	$81,480	$81,480

PROBLEM 2-4A

AVTAR SANDHU CO.
Trial Balance
June 30, 2017

	Debit	Credit
Cash ($3,340 + $270)	$ 3,610	
Accounts Receivable ($2,812 – $270)	2,542	
Supplies ($1,200 – $710)	490	
Equipment ($2,600 + $710)	3,310	
Accounts Payable ($3,666 – $306 – $360)		$ 3,000
Unearned Service Revenue		1,100
Owner's Capital		8,000
Owner's Drawings ($800 + $600)	1,400	
Service Revenue ($2,480 + $882)		3,362
Salaries and Wages Expense ($3,200 + $700 – $600)	3,300	
Utilities Expense	810	
	$15,462	$15,462

PROBLEM 2-5A

(a) & (c)

Cash **No. 101**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 1	Balance	✓			3,000
2		J1		1,500	1,500
9		J1	4,300		5,800
10		J1		4,100	1,700
12		J1		900	800
20		J1	5,000		5,800
20		J1		2,000	3,800
31		J1		3,100	700
31		J1	450		1,150
31		J1	9,000		10,150

Accounts Receivable **No. 112**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 31		J1	450		450

Land **No. 140**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 1	Balance	✓			24,000

Buildings **No. 145**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 1	Balance	✓			10,000

Equipment **No. 157**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 1	Balance	✓			10,000

PROBLEM 2-5A (Continued)

Accounts Payable **No. 201**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 1	Balance	✓			7,000
2		J1		2,000	9,000
10		J1	4,100		4,900

Owner's Capital **No. 301**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 1	Balance	✓			40,000

Service Revenue **No. 400**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 9		J1		4,300	4,300
20		J1		5,000	9,300
31		J1		9,000	18,300

Rent Revenue **No. 429**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar.31		J1		900	900

Advertising Expense **No. 610**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar.12		J1	900		900

Salaries and Wages Expense **No. 726**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 31		J1	3,100		3,100

PROBLEM 2-5A (Continued)

Rent Expense — **No. 729**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 2		J1	3,500		3,500
20		J1	2,000		5,500

(b)

J1

Date	Account Titles and Explanation	Ref.	Debit	Credit
Mar. 2	Rent Expense	729	3,500	
	Accounts Payable	201		2,000
	Cash	101		1,500
	(Rented films for cash and on account)			
3	No entry.			
9	Cash	101	4,300	
	Service Revenue	400		4,300
	(Received cash for services performed)			
10	Accounts Payable ($2,000 + $2,100)	201	4,100	
	Cash	101		4,100
	(Paid creditors on account)			
11	No entry.			
12	Advertising Expense	610	900	
	Cash	101		900
	(Paid advertising expense)			
20	Cash	101	5,000	
	Service Revenue	400		5,000
	(Received cash for services performed)			
20	Rent Expense	729	2,000	
	Cash	101		2,000
	(Paid film rental)			

PROBLEM 2-5A (Continued)

Date	Account Titles and Explanation	Ref.	Debit	Credit
Mar. 31	Salaries and Wages Expense..............	726	3,100	
	Cash	101		3,100
	(Paid salaries expense)			
31	Cash..	101	450	
	Accounts Receivable..........................	112	450	
	Rent Revenue..............................	429		900
	(15% X $6,000)			
	(Received cash and balance on account for rent revenue)			
31	Cash..	101	9,000	
	Service Revenue..........................	400		9,000
	(Received cash for services performed)			

(d)

STARR THEATER
Trial Balance
March 31, 2017

	Debit	Credit
Cash	$10,150	
Accounts Receivable	450	
Land..	24,000	
Buildings..	10,000	
Equipment..	10,000	
Accounts Payable..		$ 4,900
Owner's Capital		40,000
Service Revenue..		18,300
Rent Revenue		900
Advertising Expense....................................	900	
Salaries and Wages Expense	3,100	
Rent Expense...	5,500	
	$64,100	$64,100

CC2 COOKIE CREATIONS

(a) GENERAL JOURNAL J1

Date		Account Titles and Explanation	Debit	Credit
Nov.	8	No entry required for cashing U.S. Savings Bonds—this is a personal transaction.		
	8	Cash	500	
		Owner's Capital		500
	11	Advertising Expense	65	
		Cash		65
	13	Supplies	125	
		Cash		125
	14	Equipment	300	
		Owner's Capital		300
	16	Cash	2,000	
		Notes Payable		2,000
	17	Equipment	900	
		Cash		900
	20	Cash	125	
		Service Revenue		125
	25	Cash	30	
		Unearned Service Revenue		30
	30	Prepaid Insurance	1,320	
		Cash		1,320

CC2 (Continued)

(b)

Cash

Date		Explanation	Ref.	Debits	Credits	Balance
Nov.	8		J1	500		500
	11		J1		65	435
	13		J1		125	310
	16		J1	2,000		2,310
	17		J1		900	1,410
	20		J1	125		1,535
	25		J1	30		1,565
	30		J1		1,320	245

Supplies

Date		Explanation	Ref.	Debits	Credits	Balance
Nov.	13		J1	125		125

Prepaid Insurance

Date		Explanation	Ref.	Debits	Credits	Balance
Nov.	30		J1	1,320		1,320

Equipment

Date		Explanation	Ref.	Debits	Credits	Balance
Nov.	14		J1	300		300
	17		J1	900		1,200

Unearned Service Revenue

Date		Explanation	Ref.	Debits	Credits	Balance
Nov.	25		J1		30	30

CC2 (Continued)

(b) (Continued)

Notes Payable

Date	Explanation	Ref.	Debits	Credits	Balance
Nov. 16		J1		2,000	2,000

Owner's Capital

Date	Explanation	Ref.	Debits	Credits	Balance
Nov. 8		J1		500	500
14		J1		300	800

Service Revenue

Date	Explanation	Ref.	Debits	Credits	Balance
Nov. 20		J1		125	125

Advertising Expense

Date	Explanation	Ref.	Debits	Credits	Balance
Nov. 11		J1	65		65

CC2 (Continued)

(c)

COOKIE CREATIONS
Trial Balance
November 30, 2016

	Debit	Credit
Cash	$ 245	
Supplies	125	
Prepaid Insurance	1,320	
Equipment	1,200	
Unearned Service Revenue		$ 30
Notes Payable		2,000
Owner's Capital		800
Service Revenue		125
Advertising Expense	65	
	$2,955	$2,955

Note to instructors: Because the notes payable is not due for 24 months, it follows Unearned Service Revenue in the accounts and the trial balance.

BYP 2-1 FINANCIAL REPORTING PROBLEM

(a)

Account	(1) Increase Side	(1) Decrease Side	(2) Normal Balance
Accounts Payable	Credit	Debit	Credit
Accounts Receivable	Debit	Credit	Debit
Property, Plant, and Equipment	Debit	Credit	Debit
Cash and Cash Equivalents	Debit	Credit	Debit
Research and Development Expense	Debit	Credit	Debit
Inventories	Debit	Credit	Debit

(b)
1. Cash is increased.
2. Cash is decreased.
3. Cash is decreased or Accounts Payable is increased.

(c)
1. Cash is decreased.
2. Cash is decreased or Notes or Mortgage Payable is increased.

BYP 2-2 COMPARATIVE ANALYSIS PROBLEM

	PepsiCo			Coca-Cola	
(a)	1. Inventory:	debit	1.	Accounts Receivable:	debit
	2. Property, Plant & Equipment:	debit	2.	Cash and Cash Equivalents:	debit
	3. Accounts Payable:	credit	3.	Cost of Goods Sold(expense):	debit
	Interest Expense:	debit	4.	Sales (revenue)	credit

(b)

1. Increase in Accounts Receivable: Service Revenue or Sales Revenue is increased (credited).

2. Decrease in Salaries and Wages Payable: Cash is decreased (credited).

3. Increase in Property, Plant and Equipment: Cash is decreased (credited) and Accounts Payable or Notes payable is increased (credited).

4. Increase in Interest Expense: Cash is decreased (credited).

BYP 2-3 COMPARATIVE ANALYSIS PROBLEM

(a)

	Amazon			Wal-Mart	
1.	Interest Expense:	debit	1.	Net Product Revenues:	credit
2.	Cash and Cash Equivalents:	debit	2.	Inventories:	debit
3.	Accounts Payable:	credit	3.	Cost of Sales:	debit

(b) The following other accounts are ordinarily involved:

1. Increase in Accounts Receivable: Service Revenue or Sales Revenue is increased (credited).
2. Increase in Interest Expense: Cash is decreased (credited).
3. Decrease in Salaries and Wages Payable: Cash is decreased (credited).
4. Increase in Service Revenue: Cash or Accounts Receivable is increased (debited).

BYP 2-4 REAL-WORLD FOCUS

The answer is dependent upon the company selected by the student.

BYP 2-5 REAL-WORLD FOCUS

(a) The reason the Green Bay Packers' issue an annual report is because they are a publicly owned, nonprofit company. They issue the report to the more than 100,000 shareholders who hold shares. None of the other teams are publicly owned, so they have no obligation to make their financial information available except to their small group of owners.

(b) At the time that the article was written the owners of the NFL teams and the players' labor union were negotiating a new contract. Knowing how profitable the NFL teams are would be useful information for the players to know so that they would have a better sense of how much the teams could afford to pay. The Packers are obviously a "small market" team, they are not necessarily representative of teams in general. However, the Packers' annual report does give the players some sense of the profitability of other teams.

(c) Since some of the cost of the stadium that the Packers play in is covered by taxpayers, the county and state government has an interest in the team's finances.

(d) The Packers' revenues increased during recent years. However, because the cost of players' salaries increased at a faster rate than revenues, the Packers' operating profit actually declined.

BYP 2-6 COMMUNICATION ACTIVITY

Date: May 25, 2017

To: Accounting Instructor

From: Student

In the first transaction, bills totaling $6,000 were sent to customers for services performed. Therefore, the asset Accounts Receivable is increased $6,000 and the revenue Service Revenue is increased $6,000. Debits increase assets and credits increase revenues, so the journal entry is:

Accounts Receivable	**6,000**	
Service Revenue		**6,000**
(Billed customers for services performed)		

The $6,000 amount is then posted to the debit side of the general ledger account Accounts Receivable and to the credit side of the general ledger account Service Revenue.

In the second transaction, $2,000 was paid in salaries to employees. Therefore, the expense Salaries and Wages Expense is increased $2,000 and the asset Cash is decreased $2,000. Debits increase expenses and credits decrease assets, so the journal entry is:

Salaries and Wages Expense	**2,000**	
Cash		**2,000**
(Salaries and wages paid)		

The $2,000 amount is then posted to the debit side of the general ledger account Salaries and Wages Expense and to the credit side of the general ledger account Cash.

BYP 2-7 ETHICS CASE

(a) The stakeholders in this situation are:

- **Ellynn Kole, assistant chief accountant.**
- **Users of the company's financial statements.**
- **The Doman Company.**

(b) By adding $1,000 to the Equipment account, that account total is intentionally misstated. By not locating the error causing the imbalance, some other account may also be misstated by $1,000. If the amount of $1,000 is determined to be immaterial, and the intent is not to commit fraud (cover up an embezzlement or other misappropriation of assets), Ellynn's action might <u>not</u> be considered unethical in the preparation of interim financial statements. However, if Ellynn is violating a company accounting policy by her action, then she is acting unethically.

(c) Ellynn's alternatives are:

1. **Miss the deadline but find the error causing the imbalance.**

2. **Tell her supervisor of the imbalance and suffer the consequences.**

3. **Do as she did and locate the error later, making the adjustment in the next quarter.**

BYP 2-8 ETHICS CASE

The decision whether to fire Mr. Edmondson was the responsibility of Radio Shack's board of directors, which is elected by the company's shareholders to oversee management. The board initially announced its support for the CEO. After further investigation, the board encouraged Mr. Edmondson to resign, which he did. In contrast, when Bausch & Lomb's CEO offered to resign in a similar situation, the company's board refused to accept his resignation. Board members stated that they felt he was still the best person for the position.

Radio Shack says that although it did a reference check at the time of Mr. Edmondson's hiring, it did not check his educational credentials. Under the Sarbanes-Oxley Act, companies must now perform thorough background checks as part of a check of internal controls. The bottom line: Your résumé must be a fair and accurate depiction of your past.

BYP 2-9 ALL ABOUT YOU

(a) Students' responses to this question will vary. It is important that the steps that they identify be as specific as possible, and clearly directed toward achieving their goal. You may wish to ask a follow-up question asking them to explain how each step will assist them in achieving their goal.

(b) There are many sites on the Internet that provide information about preparing a résumé. For example, you can find extensive resources at: http://www.rileyguide.com/resprep.html. Many schools also have resources in their placement centers or writing labs. The Writing Center at Rensselaer Polytechnic Institute provides useful, concise information on its website at http://www.ccp.rpi.edu/resources/careers-and-graduate-school/resumes. A wide variety of sample résumés can be found. For example, Monster.com provides samples for a wide variety of professions and situations at http://www.career-advice.monster.com/resumes-cover-letters/careers.aspx.

(c) It is important to provide accurate and complete documentation of all relevant training, education, and employment experiences so as to provide assurance to the potential employer, and also to enable that employer to do follow-up work. If you say you have certain skills, such as computer skills, try to substantiate the claim with recognized proof of proficiency. Make sure that all addresses and phone numbers are accurate and up-to-date. Also, ensure that the people you use as references have a copy of your résumé and cover letter, and that they are informed that you are interviewing so they know to expect a call.

(d) See the sample résumés provided in the websites above for various format options. You might also mention to students that there are electronic résumé templates available on the Internet.

BYP 2-10 CONSIDERING PEOPLE, PLANET AND PROFIT

(a) **The existence of three different forms of certification would most likely create confusion for coffee purchasers. It would be difficult to know what aspects of the coffee growing process each certification covered. Similarly, if there were multiple groups that certified financial statements, each with different criteria, it would be difficult for financial statement users to know what each certification promised.**

(b) **The Starbucks certification appears to be the most common in that area. It has the advantage of having a direct link to the Starbucks coffee market. Although it does not guarantee that Starbucks will buy its coffee, it is a requirement that must be met before Starbucks will buy somebody's coffee. Note that the article states that the Starbucks certification "incorporates elements of social responsibility and environmental leadership, but quality of coffee is the first criteria." The Smithsonian Bird Friendly is considered to have the strictest requirements and, as a result, appears to be the least common.**

(c) **The certifications have multiple objectives including organic farming as a means to protect bird species, biodiversity and wildlife habitat. Some included requirements are to improve workers' living conditions, such as providing running water in worker housing, child labor regulations and education requirements. As mentioned above, the Starbucks certification has the potential financial benefit of making Starbucks a potential customer, which can stabilize farmers' earnings. Certifications can also be financially beneficial because companies can benefit from the positive public relations effects of either producing or buying coffee produced using sustainable practices.**

IFRS 2-1 INTERNATIONAL FINANCIAL REPORTING PROBLEM

Account	Financial Statement	Position in Financial Statement
Other operating income and expense	**Consolidated Income Statement**	**After gross profit and before operating profit**
Cash and cash equivalents	**Consolidated Balance Sheet**	**Current assets**
Trade accounts payable	**Consolidated Balance Sheet**	**Current liabilities**
Cost of net financial debt	**Consolidated Income Statement**	**After operating profit and before profit from continuing operations before taxes.**

CC2 COOKIE CREATIONS

(a) **GENERAL JOURNAL** **J1**

Date		Account Titles and Explanation	Debit	Credit
Nov.	8	No entry required for cashing U.S. Savings Bonds—this is a personal transaction.		
	8	Cash	500	
		Owner's Capital		500
	11	Advertising Expense	65	
		Cash		65
	13	Supplies	125	
		Cash		125
	14	Equipment	300	
		Owner's Capital		300
	16	Cash	2,000	
		Notes Payable		2,000
	17	Equipment	900	
		Cash		900
	20	Cash	125	
		Service Revenue		125
	25	Cash	30	
		Unearned Service Revenue		30
	30	Prepaid Insurance	1,320	
		Cash		1,320

CC2 (Continued)

(b)

Cash

Date		Explanation	Ref.	Debits	Credits	Balance
Nov.	8		J1	500		500
	11		J1		65	435
	13		J1		125	310
	16		J1	2,000		2,310
	17		J1		900	1,410
	20		J1	125		1,535
	25		J1	30		1,565
	30		J1		1,320	245

Supplies

Date		Explanation	Ref.	Debits	Credits	Balance
Nov.	13		J1	125		125

Prepaid Insurance

Date		Explanation	Ref.	Debits	Credits	Balance
Nov.	30		J1	1,320		1,320

Equipment

Date		Explanation	Ref.	Debits	Credits	Balance
Nov.	14		J1	300		300
	17		J1	900		1,200

Unearned Service Revenue

Date		Explanation	Ref.	Debits	Credits	Balance
Nov.	25		J1		30	30

CC2 (Continued)

(b) (Continued)

Notes Payable

Date	Explanation	Ref.	Debits	Credits	Balance
Nov. 16		J1		2,000	2,000

Owner's Capital

Date	Explanation	Ref.	Debits	Credits	Balance
Nov. 8		J1		500	500
14		J1		300	800

Service Revenue

Date	Explanation	Ref.	Debits	Credits	Balance
Nov. 20		J1		125	125

Advertising Expense

Date	Explanation	Ref.	Debits	Credits	Balance
Nov. 11		J1	65		65

CC2 (Continued)

(c)

COOKIE CREATIONS
Trial Balance
November 30, 2016

	Debit	Credit
Cash	$ 245	
Supplies	125	
Prepaid Insurance	1,320	
Equipment	1,200	
Unearned Service Revenue		$ 30
Notes Payable		2,000
Owner's Capital		800
Service Revenue		125
Advertising Expense	65	
	$2,955	$2,955

Note to instructors: Because the notes payable is not due for 24 months, it follows Unearned Service Revenue in the accounts and the trial balance.

CHAPTER 2

SOLUTIONS TO EXERCISES—SET B

EXERCISE 2-1B

1. **False. An account is an accounting record of a specific asset, *liability*, or owner's equity item.**

2. **True.**

3. **False. Each asset, liability, and *owner's* equity item *has a separate account*.**

4. **True.**

5. **False. A simple form of an account consisting of the account title, the left side, and the right side, is called a t-account.**

EXERCISE 2-2B

	Account Debited				Account Credited			
Transaction	(a) Basic Type	(b) Specific Account	(c) Effect	(d) Normal Balance	(a) Basic Type	(b) Specific Account	(c) Effect	(d) Normal Balance
Jan. 2	Asset	Cash	Increase	Debit	Owner's Equity	Owner's Capital	Increase	Credit
3	Owner's Equity	Advertising Expense	Increase	Debit	Asset	Cash	Decrease	Debit
9	Asset	Equipment	Increase	Debit	Asset	Cash	Decrease	Debit
11	Asset	Accounts Receivable	Increase	Debit	Owner's Equity	Service Revenue	Increase	Credit
16	Asset	Supplies	Increase	Debit	Liability	Accounts Payable	Increase	Credit
20	Asset	Cash	Increase	Debit	Asset	Accounts Receivable	Decrease	Debit
23	Liability	Accounts Payable	Decrease	Credit	Asset	Cash	Decrease	Debit
28	Owner's Equity	Owner's Drawings	Increase	Debit	Asset	Cash	Decrease	Debit

EXERCISE 2-3B

General Journal **J1**

Date		Account Titles and Explanation	Ref.	Debit	Credit
Jan.	2	Cash		20,000	
		Owner's Capital			20,000
	3	Advertising Expense		500	
		Cash			500
	9	Equipment		7,000	
		Cash			7,000
	11	Accounts Receivable		2,300	
		Service Revenue			2,300
	16	Supplies		700	
		Accounts Payable			700
	20	Cash		1,100	
		Accounts Receivable			1,100
	23	Accounts Payable		400	
		Cash			400
	28	Owner's Drawings		1,200	
		Cash			1,200

EXERCISE 2-4B

Oct. 1 Debits increase assets: debit Cash $22,000.
Credits increase owner's equity: credit Owner's Capital $22,000.

2 Debits increase expenses: debit Rent Expense, $700.
Credits decrease assets: credit Cash $700.

3 Debits increase assets: debit Equipment $2,800.
Credits increase liabilities: credit Accounts Payable $2,800.

EXERCISE 2-4B (Continued)

Oct.	6	Debits increase assets: debit Accounts Receivable $5,400. Credits increase revenues: credit Service Revenue $5,400.
	27	Debits decrease liabilities: debit Accounts Payable $1,100. Credits decrease assets: credit Cash $1,100.
	30	Debits increase expenses: debit Utilities Expense $180. Credits increase liabilities: credit Accounts Payable $180.

EXERCISE 2-5B

General Journal

Date		Account Titles and Explanation	Ref.	Debits	Credit
Oct.	1	Cash		22,000	
		Owner's Capital			22,000
	2	Rent Expense		700	
		Cash			700
	3	Equipment		2,800	
		Accounts Payable			2,800
	6	Accounts Receivable		5,400	
		Service Revenue			5,400
	27	Accounts Payable		1,100	
		Cash			1,100
	30	Utilities Expense		180	
		Accounts Payable			180

EXERCISE 2-6B

(a) 1. Increase the asset Cash, increase the liability Notes Payable.
2. Increase the asset Equipment, decrease the asset Cash.
3. Increase the expense Rent Expense, decrease the asset Cash.

(b)	1.	Cash	15,000	
		Notes Payable		15,000
	2.	Equipment	3,100	
		Cash		3,100
	3.	Rent Expense	900	
		Cash		900

EXERCISE 2-7B

		Assets	= Liabilities	+ Owners' Equity
(a)	1.	+		+
	2.	+	+	
	3.	+		+
	4.	–		–

(b)	1.	Cash	6,000	
		Owner's Capital		6,000
	2.	Supplies	1,100	
		Accounts Payable		1,100
	3.	Accounts Receivable	4,500	
		Service Revenue		4,500
	4.	Owner's Drawings	1,200	
		Cash		1,200

EXERCISE 2-8B

1. False. The general ledger contains all the ***asset,*** liability, and owner's equity accounts.
2. False The general ledger is sometimes referred to as the ***ledger***.
3. False. The accounts in the general ledger are arranged in ***financial statement order:*** first the assets, then the liabilities, owner's capital, owner's drawing, revenues, and expenses.
4. True.
5. True.

EXERCISE 2-9B

(a)

Cash

Aug. 1	6,000	Aug. 12	1,000
10	1,700		
31	1,500		
Bal.	8,200		

Accounts Receivable

Aug. 25	2,500	Aug. 31	1,500
Bal.	1,000		

Equipment

Aug. 12	6,000		

Notes Payable

		Aug. 12	5,000

Owner's Capital

		Aug. 1	6,000

Service Revenue

		Aug. 10	1,700
		25	2,500
		Bal.	4,200

(b)

BRET QUANDT, INVESTMENT BROKER
Trial Balance
August 31, 2017

	Debit	Credit
Cash	$ 8,200	
Accounts Receivable	1,000	
Equipment	6,000	
Notes Payable		$ 5,000
Owner's Capital		6,000
Service Revenue		4,200
	$15,200	$15,200

EXERCISE 2-10B

(a) **General Journal**

Date	Account Titles and Explanation	Ref.	Debit	Credit
Apr. 1	Cash		18,000	
	Owner's Capital			18,000
	(Owner's investment of cash in business)			
12	Cash		1,200	
	Service Revenue			1,200
	(Received cash for services provided)			
15	Salaries and Wages Expense		700	
	Cash			700
	(Paid salaries to date)			
25	Accounts Payable		1,600	
	Cash			1,600
	(Paid creditors on account)			
29	Cash		900	
	Accounts Receivable			900
	(Received cash in payment of account)			
30	Cash		1,400	
	Unearned Service Revenue			1,400
	(Received cash for future services)			

EXERCISE 2-10B (Continued)

(b)

CARRIE'S GARDENING COMPANY
Trial Balance
April 30, 2017

	Debit	Credit
Cash	$19,200	
Accounts Receivable	2,000	
Supplies	1,900	
Accounts Payable		$ 300
Unearned Service Revenue		1,400
Owner's Capital		18,000
Service Revenue		4,100
Salaries and Wages Expense	700	
	$23,800	$23,800

EXERCISE 2-11B

	Date	Account	Debit	Credit
(a)	Oct. 1	Cash	8,500	
		Owner's Capital		8,500
		(Owner's investment of cash in business)		
	10	Cash	800	
		Service Revenue		800
		(Received cash for services provided)		
	10	Cash	3,000	
		Notes Payable		3,000
		(Obtained loan from bank)		
	20	Cash	450	
		Accounts Receivable		450
		(Received cash in payment of account)		
	20	Accounts Receivable	1,070	
		Service Revenue		1,070
		(Billed clients for services provided)		

EXERCISE 2-11B (Continued)

(b)

NOLASKO CO.
Trial Balance
October 31, 2017

	Debit	Credit
Cash	$ 11,800	
Accounts Receivable	1,420	
Supplies	400	
Equipment	2,000	
Notes Payable		$ 3,000
Accounts Payable		500
Owner's Capital		10,500
Owner's Drawings	300	
Service Revenue		2,670
Salaries and Wages Expense	500	
Rent Expense	250	
	$16,670	$16,670

EXERCISE 2-12B

(a)

General Journal J1

Date	Account Titles and Explanation	Ref.	Debit	Credit
Sept. 1	Cash	101	25,000	
	Owner's Capital	301		25,000
5	Equipment	157	30,000	
	Cash	101		7,500
	Accounts Payable	201		22,500
25	Accounts Payable	201	6,500	
	Cash	101		6,500
30	Owner's Drawings	306	1,000	
	Cash	101		1,000

EXERCISE 2-12B (Continued)

(b)

Cash **No. 101**

Date	Explanation	Ref.	Debit	Credit	Balance
Sept. 1		J1	25,000		25,000
5		J1		7,500	17,500
25		J1		6,500	11,000
30		J1		1,000	10,000

Equipment **No. 157**

Date	Explanation	Ref.	Debit	Credit	Balance
Sept. 5		J1	30,000		30,000

Accounts Payable **No. 201**

Date	Explanation	Ref.	Debit	Credit	Balance
Sept. 5		J1		22,500	22,500
25		J1	6,500		16,000

Owner's Capital **No. 301**

Date	Explanation	Ref.	Debit	Credit	Balance
Sept. 1		J1		25,000	25,000

Owner's Drawings **No. 306**

Date	Explanation	Ref.	Debit	Credit	Balance
Sept. 30		J1	1,000		1,000

EXERCISE 2-13B

Error	(a) In Balance	(b) Difference	(c) Larger Column
1.	No	$500	Debit
2.	Yes	—	—
3.	No	400	Debit
4.	No	400	Debit
5.	Yes	—	—
6.	No	45	Credit

EXERCISE 2-14B

MORAN DELIVERY SERVICE
Trial Balance
July 31, 2017

	Debit	Credit
Cash ($54,740 – Debit total without Cash $40,830)	$ 13,910	
Accounts Receivable	5,220	
Prepaid Insurance	1,190	
Equipment	30,000	
Notes Payable		$16,000
Accounts Payable		5,110
Salaries and Wages Payable		490
Owner's Capital		26,780
Owner's Drawings	420	
Service Revenue		6,360
Salaries and Wages Expense	2,660	
Maintenance and Repairs Expense	580	
Gasoline Expense	450	
Insurance Expense	310	
	$54,740	$54,740

SOLUTIONS TO PROBLEMS—SET C

PROBLEM 2-1C

J1

Date		Account Titles and Explanation	Ref.	Debit	Credit
Mar.	1	Cash		50,000	
		Owner's Capital			50,000
		(Owner's investment of cash in business)			
	3	Land		23,000	
		Buildings		9,000	
		Equipment		6,000	
		Cash			38,000
		(Purchased Tee's Golf Land)			
	5	Advertising Expense		1,600	
		Cash			1,600
		(Paid for advertising)			
	6	Prepaid Insurance		1,480	
		Cash			1,480
		(Paid for one-year insurance policy)			
	10	Equipment		2,600	
		Accounts Payable			2,600
		(Purchased equipment on account)			
	18	Cash		800	
		Service Revenue			800
		(Received cash for services provided)			
	19	Cash		1,500	
		Unearned Service Revenue			1,500
		(Received cash for future services)			

PROBLEM 2-1C (Continued)

Date		Account Titles and Explanation	Ref.	Debit	Credit
Mar.	25	Owner's Drawings		2,000	
		Cash			2,000
		(Withdrew cash for personal use)			
	30	Salaries and Wages Expense		600	
		Cash			600
		(Paid salaries)			
	30	Accounts Payable		2,600	
		Cash			2,600
		(Paid creditor on account)			
	31	Cash		500	
		Service Revenue			500
		(Received cash for services provided)			

PROBLEM 2-2C

(a)

J1

Date		Account Titles and Explanation	Ref.	Debit	Credit
Apr.	1	Cash	101	45,000	
		Owner's Capital	301		45,000
		(Owner's investment of cash in business)			
	1	No entry—not a transaction.			
	2	Rent Expense	729	800	
		Cash	101		800
		(Paid monthly office rent)			
	3	Supplies	126	1,500	
		Accounts Payable	201		1,500
		(Purchased supplies on account)			
	10	Accounts Receivable	112	1,800	
		Service Revenue	400		1,800
		(Billed clients for services provided)			
	11	Cash	101	500	
		Unearned Service Revenue	209		500
		(Received cash for future service)			
	20	Cash	101	1,500	
		Service Revenue	400		1,500
		(Received cash for services provided)			
	30	Salaries and Wages Expense	726	2,000	
		Cash	101		2,000
		(Paid monthly salary)			

PROBLEM 2-2C (Continued)

Date	Account Titles and Explanation	Ref.	Debits	Credit
Apr. 30	Accounts Payable	201	600	
	Cash	101		600
	(Paid creditor on account)			

(b)

Cash — No. 101

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 1		J1	35,000		45,000
2		J1		800	44,200
11		J1	500		44,700
20		J1	1,500		46,200
30		J1		2,000	44,200
30		J1		600	43,600

Accounts Receivable — No. 112

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 10		J1	1,800		1,800

Supplies — No. 126

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 3		J1	1,500		1,500

Accounts Payable — No. 201

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 3		J1		1,500	1,500
30		J1	600		900

Unearned Service Revenue — No. 209

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 11		J1		500	500

PROBLEM 2-2C (Continued)

Owner's Capital **No. 301**

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 1		J1		45,000	45,000

Service Revenue **No. 400**

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 10		J1		1,800	1,800
20		J1		1,500	3,300

Salaries and Wages Expense **No. 726**

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 30		J1	2,000		2,000

Rent Expense **No. 729**

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 2		J1	800		800

(c)

BARBARA FAIR, ARCHITECT
Trial Balance
April 30, 2017

	Debit	Credit
Cash	$43,600	
Accounts Receivable	1,800	
Supplies	1,500	
Accounts Payable		$ 900
Unearned Service Revenue		500
Owner's Capital		45,000
Service Revenue		3,300
Salaries and Wages Expense	2,000	
Rent Expense	800	
	$49,700	$49,700

PROBLEM 2-3C

(a)

Trans.	Account Titles and Explanation	Debit	Credit
1.	Cash	100,000	
	Owner's Capital		100,000
2.	No entry—Not a transaction.		
3.	Prepaid Rent	36,000	
	Cash		36,000
4.	Equipment	60,000	
	Cash		20,000
	Accounts Payable		40,000
5.	Prepaid Insurance	3,000	
	Cash		3,000
6.	Supplies	1,000	
	Cash		1,000
7.	Supplies	3,000	
	Accounts Payable		3,000
8.	Cash	10,000	
	Accounts Receivable	20,000	
	Service Revenue		30,000
9.	Accounts Payable	800	
	Cash		800
10.	Cash	5,000	
	Accounts Receivable		5,000
11.	Utilities Expense	400	
	Accounts Payable		400

PROBLEM 2-3C (Continued)

Trans.	Account Titles and Explanation	Debit	Credit
12.	Salaries and Wages Expense.........	6,000	
	Cash		6,000

(b)

Cash

(1)	100,000		
		(3)	36,000
		(4)	20,000
		(5)	3,000
		(6)	1,000
(8)	10,000		
		(9)	800
(10)	5,000		
		(12)	6,000
	48,200		

Accounts Receivable

(8)	20,000		
		(10)	5,000
	15,000		

Supplies

(6)	1,000		
(7)	3,000		
	4,000		

Prepaid Insurance

(5)	3,000		
	3,000		

Prepaid Rent

(3)	36,000		
	36,000		

Equipment

(4)	60,000		
	60,000		

Accounts Payable

		(4)	40,000
		(7)	3,000
(9)	800		
		(11)	400
			42,600

Owner's Capital

		(1)	100,000
			100,000

Service Revenue

		(8)	30,000
			30,000

Salaries and Wages Expense

(12)	6,000		
	6,000		

Utilities Expense

(11)	400		
	400		

PROBLEM 2-3C (Continued)

(c)

HASKETT SERVICES
Trial Balance
May 31, 2017

	Debit	Credit
Cash	$ 48,200	
Accounts Receivable	15,000	
Supplies	4,000	
Prepaid Insurance	3,000	
Prepaid Rent	36,000	
Equipment	60,000	
Accounts Payable		$ 42,600
Owner's Capital		100,000
Service Revenue		30,000
Salaries and Wages Expense	6,000	
Utilities Expense	400	
	$172,600	$172,600

PROBLEM 2-4C

BILL BELLICHEK CO.
Trial Balance
June 30, 2017

	Debit	Credit
Cash ($2,840 + $270)	$ 3,110	
Accounts Receivable ($3,231 – $270)	2,961	
Supplies ($800 – $340)	460	
Equipment ($3,000 + $340)	3,340	
Accounts Payable ($2,666 – $206 – $260)		$ 2,200
Unearned Service Revenue		1,200
Owner's Capital		9,000
Owner's Drawing ($800 + $500)	1,300	
Service Revenue ($2,380 + $801)		3,181
Salaries and Wages Expense ($3,400 + $600 – $500)	3,500	
Supplies Expense	910	
	$15,581	$15,581

PROBLEM 2-5C

(a)&(c)

Cash **No. 101**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 1	Balance	✓			16,000
2		J1		3,000	13,000
9		J1	6,500		19,500
10		J1		7,000	12,500
12		J1		800	11,700
20		J1	7,200		18,900
20		J1		3,000	15,900
31		J1		4,800	11,100
31		J1	400		11,500
31		J1	7,000		18,500

Accounts Receivable **No. 112**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 31		J1	400		400

Land **No. 140**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 1	Balance	✓			42,000

Buildings **No. 145**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 1	Balance	✓			18,000

Equipment **No. 157**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 1	Balance	✓			16,000

PROBLEM 2-5C (Continued)

Accounts Payable — No. 201

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 1	Balance	✓			12,000
2		J1		3,000	15,000
10		J1	7,000		8,000

Owner's Capital — No. 301

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 1	Balance	✓			80,000

Service Revenue — No. 400

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 9		J1		6,500	6,500
20		J1		7,200	13,700
31		J1		7,000	20,700

Rent Revenue — No. 429

Date	Explanation	Ref.	Debit	Credit	Balance
Mar.31		J1		800	800

Advertising Expense — No. 610

Date	Explanation	Ref.	Debit	Credit	Balance
Mar.12		J1	800		800

Rent Expense — No. 632

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 2		J1	6,000		6,000
20		J1	3,000		9,000

PROBLEM 2-5C (Continued)

Salaries and Wages Expense **No. 726**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 31		J1	4,800		4,800

(b)

J1

Date	Account Titles and Explanation	Ref.	Debit	Credit
Mar. 2	Rent Expense	632	6,000	
	Accounts Payable	201		3,000
	Cash	101		3,000
	(Rented films for cash and on account)			
3	No entry.			
9	Cash	101	6,500	
	Service Revenue	400		6,500
	(Received cash for services provided)			
10	Accounts Payable ($3,000 + $4,000)	201	7,000	
	Cash	101		7,000
	(Paid creditors on account)			
11	No entry.			
12	Advertising Expense	610	800	
	Cash	101		800
	(Paid advertising expense)			
20	Cash	101	7,200	
	Service Revenue	400		7,200
	(Received cash for services provided)			
20	Rent Expense	632	3,000	
	Cash	101		3,000
	(Paid film rental)			

PROBLEM 2-5C (Continued)

Date	Account Titles and Explanation	Ref.	Debit	Credit
Mar.31	Salaries and Wages Expense	726	4,800	
	Cash	101		4,800
	(Paid salaries expense)			
31	Cash	101	400	
	Accounts Receivable	112	400	
	Rent Revenue (10% X $8,000)	429		800
	(Received cash and balance on account for rent revenue)			
31	Cash	101	7,000	
	Service Revenue	400		7,000
	(Received cash for services provided)			

(d)

JENSEN THEATER
Trial Balance
March 31, 2017

	Debit	Credit
Cash	$ 18,500	
Accounts Receivable	400	
Land	42,000	
Buildings	18,000	
Equipment	16,000	
Accounts Payable		$ 8,000
Owner's Capital		80,000
Service Revenue		20,700
Rent Revenue		800
Advertising Expense	800	
Rent Expense	9,000	
Salaries and Wages Expense	4,800	
	$109,500	$109,500

CHAPTER 3

Adjusting the Accounts

ASSIGNMENT CLASSIFICATION TABLE

Study Objectives	Questions	Brief Exercises	Do It!	Exercises	A Problems	B Problems
1. Explain the time period assumption.	1		1	1		
2. Explain the accrual basis of accounting.	2, 3, 4, 5		1	2, 3, 10		
3. Explain the reasons for adjusting entries.	6, 7	1				
4. Identify the major types of adjusting entries.	8, 18	2, 8		4, 6, 11		
5. Prepare adjusting entries for deferrals.	8, 9, 10, 11, 12, 13, 18, 19, 20	3, 4, 5, 6	2	5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16	1A, 2A, 3A, 4A, 5A, 6A	1B, 2B, 3B, 4B, 5B
6. Prepare adjusting entries for accruals.	8, 14, 15, 16, 17, 18, 19, 20	7	3	5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16	1A, 2A, 3A, 4A, 5A, 6A	1B, 2B, 3B, 4B, 5B
7. Describe the nature and purpose of an adjusted trial balance.	21	9, 10	4	10, 11, 12, 13, 14	1A, 2A, 3A, 5A, 6A	1B, 2B, 3B, 5B
*8. Prepare adjusting entries for the alternative treatment of deferrals.	22	11		17, 18	6A	

***Note:** All **asterisked** Questions, Exercises, and Problems relate to material contained in the appendix to the chapter.

ASSIGNMENT CHARACTERISTICS TABLE

Problem Number	Description	Difficulty Level	Time Allotted (min.)
1A	Prepare adjusting entries, post to ledger accounts, and prepare an adjusted trial balance.	Simple	40–50
2A	Prepare adjusting entries, post, and prepare adjusted trial balance and financial statements.	Simple	50–60
3A	Prepare adjusting entries and financial statements.	Moderate	40–50
4A	Prepare adjusting entries.	Moderate	30–40
5A	Journalize transactions and follow through accounting cycle to preparation of financial statements.	Moderate	60–70
*6A	Prepare adjusting entries, adjusted trial balance, and financial statements using appendix.	Moderate	40–50
1B	Prepare adjusting entries, post to ledger accounts, and prepare an adjusted trial balance.	Simple	40–50
2B	Prepare adjusting entries, post, and prepare adjusted trial balance and financial statements.	Simple	50–60
3B	Prepare adjusting entries and financial statements.	Moderate	40–50
4B	Prepare adjusting entries.	Moderate	30–40
5B	Journalize transactions and follow through accounting cycle to preparation of financial statements.	Moderate	60–70

WEYGANDT IFRS 1E
CHAPTER 3
ADJUSTING THE ACCOUNTS

Number	SO	BT	Difficulty	Time (min.)
BE1	3	C	Simple	4–6
BE2	4	AN	Moderate	6–8
BE3	5	AN	Simple	3–5
BE4	5	AN	Simple	3–5
BE5	5	AN	Simple	2–4
BE6	5	AN	Simple	2–4
BE7	6	AN	Simple	4–6
BE8	4	AN	Simple	5–7
BE9	7	AP	Simple	4–6
BE10	7	AP	Simple	2–4
BE11*	8	AN	Moderate	3–5
DI1	1, 2	K	Simple	2–4
DI2	5	AN	Simple	6–8
DI3	6	AN	Simple	4–6
DI4	7	AN	Moderate	20–30
EX1	1	C	Simple	3–5
EX2	2	E	Moderate	10–15
EX3	2	AP	Simple	6–8
EX4	4	AN	Simple	5–6
EX5	5, 6	AN	Moderate	10–15
EX6	4–6	AN	Moderate	10–12
EX7	5, 6	AN	Moderate	8–10
EX8	5, 6	AN	Moderate	8–10
EX9	5, 6	AN	Simple	8–10
EX10	2, 5–7	AN	Moderate	8–10
EX11	4–7	AN	Moderate	12–15
EX12	5–7	AN	Moderate	8–10
EX13	5–7	AN	Simple	8–10
EX14	7	AP	Simple	12–15

ADJUSTING THE ACCOUNTS (Continued)

Number	SO	BT	Difficulty	Time (min.)
EX15	5, 6	AN, S	Moderate	8–10
EX16	5, 6	AN, C	Moderate	10–15
EX17	8	AN	Moderate	6–8
EX18	8	AN	Moderate	10–12
P1A	5–7	AN	Simple	40–50
P2A	5–7	AN	Simple	50–60
P3A	5–7	AN	Moderate	40–50
P4A	5, 6	AN	Moderate	30–40
P5A	5–7	AN	Moderate	60–70
P6A	5–8	AN	Moderate	40–50
P1B	5–7	AN	Simple	40–50
P2B	5–7	AN	Simple	50–60
P3B	5–7	AN	Moderate	40–50
P4B	5, 6	AN	Moderate	30–40
P5B	5–7	AN	Moderate	60–70
BYP1	5, 6	AN	Simple	10–15
BYP2	—	AN	Simple	10–15
BYP3	—	AN	Simple	10–15
BYP4	2–7	S	Moderate	15–20
BYP5	3–6	C	Simple	10–15
BYP6	3–6	E	Moderate	10–15

BLOOM'S TAXONOMY TABLE

Correlation Chart between Bloom's Taxonomy, Study Objectives and End-of-Chapter Exercises and Problems

Study Objective	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
1. Explain the time period assumption.	DI3-1	Q3-1 E3-1				
2. Explain the accrual basis of accounting.	DI3-1	Q3-2 Q3-4 Q3-3	Q3-5 E3-3	E3-10		E3-2
3. Explain the reasons for adjusting entries.		Q3-6 BE3-1 Q3-7				
4. Identify the major types of adjusting entries.		Q3-8		Q3-18 BE3-8 E3-6 BE3-2 E3-4 E3-11		
5. Prepare adjusting entries for deferrals.		Q3-8 Q3-9 Q3-10 Q3-11 Q3-12 Q3-13 Q3-19 Q3-20		Q3-18 E3-9 P3-4A BE3-3 E3-10 P3-5A BE3-4 E3-11 P3-6A BE3-5 E3-12 P3-1B BE3-6 E3-13 P3-2B DI3-2 E3-15 P3-3B E3-5 E3-16 P3-4B E3-6 P3-1A P3-5B E3-7 P3-2A E3-8 P3-3A	E3-15	
6. Prepare adjusting entries for accruals.		Q3-8 Q3-14 Q3-15 Q3-19 Q3-20	Q3-17	Q3-16 E3-10 P3-4A Q3-18 E3-11 P3-5A BE3-7 E3-12 P3-6A DI3-3 E3-13 P3-1B E3-5 E3-15 P3-2B E3-6 E3-16 P3-3B E3-7 P3-1A P3-4B E3-8 P3-2A P3-5B E3-9 P3-3A	E3-15	
7. Describe the nature and purpose of an adjusted trial balance.		Q3-21	BE3-9 BE3-10 E3-14	DI3-4 P3-1A P3-1B E3-10 P3-2A P3-2B E3-11 P3-3A P3-3B E3-12 P3-5A P3-5B E3-13 P3-6A		
*8. Prepare adjusting entries for the alternative treatment of deferrals.			Q3-22	BE3-11 E3-18 E3-17 P3-6A		
Broadening Your Perspective		Communication		Financial Reporting Comparative Analysis Exploring the Web	Decision Making Across the Organization	Ethics Case

ANSWERS TO QUESTIONS

1. (a) Under the time period assumption, an accountant is required to determine the relevance of each business transaction to specific accounting periods.
(b) An accounting time period of one year in length is referred to as a fiscal year. A fiscal year that extends from January 1 to December 31 is referred to as a calendar year. Accounting periods of less than one year are called interim periods.

2. The two principles are:

The revenue recognition principle, which states that revenue should be recognized when future benefits are probable and measurable.

The expense recognition principle, which states that expenses should be recognized when assets are used up or liabilities are incurred to generate revenues.

3. The law firm should recognize the revenue in April. The revenue recognition principle states that revenue should be recognized in the accounting period in which it is earned.

4. Information presented on an accrual basis is more useful than on a cash basis because it reveals relationships that are likely to be important in predicting future results. To illustrate, under accrual accounting, revenues are recognized when earned so they can be related to the economic environment in which they occur. Trends in revenues are thus more meaningful.

5. Expenses of $4,500 should be deducted from the revenues in April. Under the expense recognition principle efforts (expenses) should be matched with accomplishments (revenues).

6. No, adjusting entries are required by the revenue recognition and expense recognition principles.

7. A trial balance may not contain up-to-date information for financial statements because:

(a) Some events are not journalized daily because it is not efficient to do so.
(b) The expiration of some costs occurs with the passage of time rather than as a result of daily transactions.
(c) Some items may be unrecorded because the transaction data are not yet known.

8. The two categories of adjusting entries are deferrals and accruals. Deferrals consist of prepaid expenses and unearned revenues. Accruals consist of accrued revenues and accrued expenses.

9. In the adjusting entry for a prepaid expense, an expense is debited and an asset is credited.

10. No. Depreciation is the process of allocating the cost of an asset to expense over its useful life in a rational and systematic manner. Depreciation results in the presentation of the book value of the asset, not its fair value.

11. Depreciation expense is an expense account whose normal balance is a debit. This account shows the cost that has expired during the current accounting period. Accumulated depreciation is a contra asset account whose normal balance is a credit. The balance in this account is the depreciation that has been recognized from the date of acquisition to the statement of financial position date.

12.

Equipment	R_s18,000,000	
Less: Accumulated Depreciation	6,000,000	R_s12,000,000

13. In the adjusting entry for an unearned revenue, a liability is debited and a revenue is credited.

14. Asset and revenue. An asset would be debited and a revenue would be credited.

15. An expense is debited and a liability is credited.

16. Net income was understated $200 because prior to adjustment, revenues are understated by $900 and expenses are understated by $700. The difference in this case is $200 ($900 – $700).

17. The entry is:

Jan. 9	Salaries Payable	2,000	
	Salaries Expense	3,000	
	Cash		5,000

18. (a) Accrued revenues.
(b) Unearned revenues.
(c) Accrued expenses.
(d) Accrued expenses or prepaid expenses.
(e) Prepaid expenses.
(f) Accrued revenues or unearned revenues.

19. (a) Salaries Payable.
(b) Accumulated Depreciation.
(c) Interest Expense.
(d) Supplies Expense.
(e) Service Revenue.
(f) Service Revenue.

20. Disagree. An adjusting entry affects only one statement of financial position account and one income statement account.

21. Financial statements can be prepared from an adjusted trial balance because the balances of all accounts have been adjusted to show the effects of all financial events that have occurred during the accounting period.

***22.** For Supplies Expense (prepaid expense): expenses are overstated and assets are understated. The adjusting entry is:

Assets (Supplies)	XX	
Expenses (Supplies Expense)		XX

For Rent Revenue (unearned revenues): revenues are overstated and liabilities are understated. The adjusting entry is:

Revenues (Rent Revenue)	XX	
Liabilities (Unearned Rent Revenue)		XX

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 3-1

(a) Prepaid Insurance—to recognize insurance expired during the period.

(b) Depreciation Expense—to account for the depreciation that has occurred on the asset during the period.

(c) Unearned Revenue—to record revenue earned for services provided.

(d) Interest Payable—to recognize interest accrued but unpaid on notes payable.

BRIEF EXERCISE 3-2

Item	(a) Type of Adjustment	(b) Account Balances before Adjustment
1.	Prepaid Expenses	Assets Overstated Expenses Understated
2.	Accrued Revenues	Assets Understated Revenues Understated
3.	Accrued Expenses	Expenses Understated Liabilities Understated
4.	Unearned Revenues	Liabilities Overstated Revenues Understated

BRIEF EXERCISE 3-3

Dec. 31	Advertising Supplies Expense	4,000	
	Advertising Supplies (£6,700 – £2,700)		4,000

Advertising Supplies

	6,700	12/31	4,000
12/31 Bal.	2,700		

Advertising Supplies Expense

12/31	4,000		

BRIEF EXERCISE 3-4

Dec. 31	Depreciation Expense—Equipment	5,000	
	Accumulated Depreciation—Equipment		5,000

Depr. Expense—Equipment

12/31 5,000	

Accum. Depreciation—Equipment

	12/31 5,000

Statement of Financial Position:

Equipment	$30,000	
Less: Accumulated Depreciation	5,000	$25,000

BRIEF EXERCISE 3-5

July 1	Prepaid Insurance	18,000	
	Cash		18,000
Dec. 31	Insurance Expense [($18,000 ÷ 3) X 1/2]	3,000	
	Prepaid Insurance		3,000

Prepaid Insurance

7/1 18,000	12/31 3,000
12/31 Bal. 15,000	

Insurance Expense

12/31 3,000	

BRIEF EXERCISE 3-6

July 1	Cash	18,000	
	Unearned Insurance Revenue		18,000
Dec. 31	Unearned Insurance Revenue	3,000	
	Insurance Revenue		3,000

Unearned Insurance Revenue

12/31 3,000	7/1 18,000
	12/31 Bal. 15,000

Insurance Revenue

	12/31 3,000

BRIEF EXERCISE 3-7

1.	Dec. 31	Interest Expense	400	
		Interest Payable		400
2.	31	Accounts Receivable	1,500	
		Service Revenue		1,500
3.	31	Salaries Expense	900	
		Salaries Payable		900

BRIEF EXERCISE 3-8

Account	(a) Type of Adjustment	(b) Related Account
Accounts Receivable	Accrued Revenues	Service Revenue
Prepaid Insurance	Prepaid Expenses	Insurance Expense
Accum. Depr.—Equipment	Prepaid Expenses	Depreciation Expense
Interest Payable	Accrued Expenses	Interest Expense
Unearned Service Revenue	Unearned Revenues	Service Revenue

BRIEF EXERCISE 3-9

KWUN COMPANY, INC.
Income Statement
For the Year Ended December 31, 2011

Revenues		
Service revenue		₩35,400
Expenses		
Salaries expense	₩16,000	
Rent expense	4,000	
Insurance expense	2,000	
Supplies expense	1,500	
Depreciation expense	1,300	
Total expenses		24,800
Net income		₩10,600

BRIEF EXERCISE 3-10

KWUN COMPANY, INC.
Retained Earnings Statement
For the Year Ended December 31, 2011

Retained Earnings, January 1	₩ 0
Add: Net income	10,600
	10,600
Less: Dividends	6,000
Retained Earnings, December 31	₩ 4,600

*BRIEF EXERCISE 3-11

(a)	Apr. 30	Supplies	1,000	
		Supplies Expense		1,000
(b)	30	Service Revenue	3,000	
		Unearned Service Revenue		3,000

SOLUTIONS FOR DO IT! REVIEW EXERCISES

DO IT! 3-1

1. (d) 2. (e) 3. (h) 4. (c)

DO IT! 3-2

1.	Insurance Expense	300	
	Prepaid Insurance		300
	(To record insurance expired)		
2.	Office Supplies Expense (CHF2,500 – CHF900)	1,600	
	Office Supplies		1,600
	(To record supplies used)		
3.	Depreciation Expense	500	
	Accumulated Depreciation—Off. Equip.		500
	(To record monthly depreciation)		

DO IT! 3-2 (Continued)

4.	Unearned Revenue (CHF10,000 x 2/5)............................	4,000	
	Service Revenue		4,000
	(To record revenue for services provided)		

DO IT! 3-3

1.	Salaries Expense	1,100	
	Salaries Payable..		1,100
	(To record accrued salaries)		
2.	Interest Expense ($20,000 x .12 x 1/12)	200	
	Interest Payable...		200
	(To record accrued interest)		
3.	Accounts Receivable...	1,600	
	Service Revenue		1,600
	(To record revenue for service provided)		

DO IT! 3-4

(a) The net income is determined by adding revenues and subtracting expenses. The net income is computed as follows:

Revenues		
Commission revenue		R$11,360
Rent revenue		690
Total revenues		R$12,050
Expenses		
Salaries expense..	R$7,520	
Rent expense	1,200	
Depreciation expense..	700	
Utilities expense..	410	
Supplies expense	160	
Interest expense...	40	
Total expenses		10,030
Net income..		R$ 2,020

DO IT! 3-4 (Continued)

(b) Total assets and liabilities are computed as follows:

Assets		
Equipment	R$12,000	
Less: Accumulated depreciation	700	R$11,300
Supplies		800
Prepaid rent		720
Accounts receivable		480
Cash		5,360
Total assets		R$18,660
Liabilities		
Notes payable		R$ 4,000
Accounts payable		1,200
Unearned rent		400
Salaries payable		300
Interest payable		40
Total Liabilities		R$ 5,940

(c)

Retained Earnings, April 1	R$ –0–
Add: Net income	2,020
	2,020
Less: Dividends	500
Retained Earnings, June 30	R$ 1,520

SOLUTIONS TO EXERCISES

EXERCISE 3-1

1. True.
2. True.
3. False. Many business transactions affect more than one of these artificial time periods. For example, the purchase of a building affects expenses for many years.
4. True.
5. False. A time period that lasts *less than one year*, such as monthly or quarterly periods, is called an interim period.
6. False. All *calendar* years are *fiscal* years, but not all *fiscal* years are *calendar* years. An accounting time period that is one year in length is referred to as a fiscal year. A fiscal year that starts on January 1 and ends on December 31 is a calendar year.

EXERCISE 3-2

(a) Accrual-basis accounting records the transactions that change a company's financial statements in the periods in which the events occur rather than in the periods in which the company receives or pays cash. Information presented on an accrual basis is useful because it reveals relationships that are likely to be important in predicting future results. Conversely, under cash-basis accounting, revenue is recorded only when cash is received, and an expense is recognized only when cash is paid. As a result, the cash basis of accounting often leads to misleading financial statements.

(b) Politicians might desire a cash-basis accounting system over an accrual-basis system because if an accrual-accounting system is used, it could mean that billions in government liabilities presently unrecorded would have to be reported in the federal budget immediately. The recognition of these additional liabilities would make the deficit even worse. This is not what politicians would like to see and be held responsible for.

EXERCISE 3-2 (Continued)

(c) Dear Official,

It is my understanding, after having taken a beginning course in accounting principles, that the government uses a cash-basis system rather than an accrual-basis accounting system.

I am shocked at such a practice! There must be billions of dollars of liabilities hidden in many contracts that have not been recorded yet for the mere reason that they haven't been paid yet. I realize that the deficit would dramatically increase if we were to implement an accrual system, but in all fairness, we citizens should be given a more accurate picture of what our government is up to.

Sincerely,

CONCERNED STUDENT

EXERCISE 3-3

(a)	Cash received from revenue	$100,000
	Cash paid for expenses	(70,000)
	Cash-basis net income	$ 30,000
(b)	Revenues [($100,000 – $25,000) + $40,000]	$115,000
	Expenses [($70,000 – $30,000) + $42,000]	(82,000)
	Accrual-basis net income	$ 33,000

EXERCISE 3-4

1. Unearned revenue.
2. Accrued expense.
3. Accrued expense.
4. Accrued revenue.
5. Prepaid expense.
6. Unearned revenue.
7. Accrued revenue.
8. Prepaid expense.
9. Prepaid expense.
10. Prepaid expense.
11. Accrued expense.

EXERCISE 3-5

1.	Interest Expense	400	
	Interest Payable ($10,000 X 12% X 4/12)		400
2.	Supplies Expense	1,650	
	Supplies ($2,450 – $800)		1,650
3.	Depreciation Expense	1,000	
	Accumulated Depreciation—Equipment		1,000
4.	Insurance Expense	1,225	
	Prepaid Insurance ($2,100 X 7/12)		1,225
5.	Unearned Consulting Revenue	10,000	
	Consulting Revenue ($40,000 X 1/4)		10,000
6.	Accounts Receivable	4,200	
	Consulting Revenue		4,200
7.	Salaries Expense	5,400	
	Salaries Payable ($9,000 X 3/5)		5,400

EXERCISE 3-6

Item	(a) Type of Adjustment	(b) Accounts before Adjustment
1.	Accrued Revenues	Assets Understated Revenues Understated
2.	Prepaid Expenses	Assets Overstated Expenses Understated
3.	Accrued Expenses	Expenses Understated Liabilities Understated
4.	Unearned Revenues	Liabilities Overstated Revenues Understated
5.	Accrued Expenses	Expenses Understated Liabilities Understated
6.	Prepaid Expenses	Assets Overstated Expenses Understated

EXERCISE 3-7

1.	Mar. 31	Depreciation Expense ($400 X 3)	1,200	
		Accumulated Depreciation—Equipment		1,200
2.	31	Unearned Rent Revenue	3,300	
		Rent Revenue ($9,900 X 1/3)		3,300
3.	31	Interest Expense	500	
		Interest Payable		500
4.	31	Supplies Expense	2,100	
		Supplies ($2,800 – $700)		2,100
5.	31	Insurance Expense ($200 X 3)	600	
		Prepaid Insurance		600

EXERCISE 3-8

1.	Jan. 31	Accounts Receivable	875	
		Service Revenue		875
2.	31	Utilities Expense	520	
		Utilities Payable		520
3.	31	Depreciation Expense	400	
		Accumulated Depreciation—Dental Equipment		400
	31	Interest Expense	500	
		Interest Payable		500
4.	31	Insurance Expense (TL12,000 ÷ 12)	1,000	
		Prepaid Insurance		1,000
5.	31	Supplies Expense (TL1,600 – TL400)	1,200	
		Supplies		1,200

EXERCISE 3-9

1.	Oct. 31	Advertising Supplies Expense	2,000	
		Advertising Supplies ($2,500 – $500)		2,000
2.	31	Insurance Expense	100	
		Prepaid Insurance		100
3.	31	Depreciation Expense	50	
		Accumulated Depreciation—Office Equipment		50
4.	31	Unearned Revenue	600	
		Service Revenue		600
5.	31	Accounts Receivable	300	
		Service Revenue		300

EXERCISE 3-9 (Continued)

6.	Oct. 31	Interest Expense	70	
		Interest Payable		70
7.	31	Salaries Expense	1,500	
		Salaries Payable		1,500

EXERCISE 3-10

BENNING CO.
Income Statement
For the Month Ended July 31, 2011

Revenues		
Service revenue ($5,500 + $500)		$6,000
Expenses		
Wages expense ($2,300 + $300)	$2,600	
Supplies expense ($1,200 – $200)	1,000	
Utilities expense	600	
Insurance expense	400	
Depreciation expense	150	
Total expenses		4,750
Net income		$1,250

EXERCISE 3-11

	Answer	Computation	
(a)	Supplies balance = £1,300	Supplies expense	£ 950
		Add: Supplies (1/31)	850
		Less: Supplies purchased	500
		Supplies (1/1)	£1,300
(b)	Total premium = £4,800	Total premium = Monthly premium X 12; £400 X 12 = £4,800	
	Purchase date = Aug. 1, 2010	Purchase date: On Jan. 31, there are 6 months' coverage remaining (£400 X 6). Thus, the purchase date was 6 months earlier on Aug. 1, 2010.	

EXERCISE 3-11 (Continued)

(c) Salaries payable = £2,500

Cash paid	£3,500
Salaries payable (1/31/11)	800
	4,300
Less: Salaries expense	1,800
Salaries payable (12/31/10)	£2,500

(d) Unearned revenue = £1,150

Service revenue	£2,000
Unearned service revenue (1/31/11)	750
	2,750
Cash received in January	1,600
Unearned service revenue (12/31/10)	£1,150

EXERCISE 3-12

(a)	July 10	Supplies	400	
		Cash		400
	14	Cash	2,000	
		Service Revenue		2,000
	15	Salaries Expense	1,200	
		Cash		1,200
	20	Cash	1,000	
		Unearned Revenue		1,000
(b)	July 31	Supplies Expense	800	
		Supplies		800
	31	Accounts Receivable	500	
		Service Revenue		500
	31	Salaries Expense	1,200	
		Salaries Payable		1,200
	31	Unearned Revenue	900	
		Service Revenue		900

EXERCISE 3-13

Aug. 31	Accounts Receivable	1,000	
	Service Revenue		1,000
31	Office Supplies Expense	1,600	
	Office Supplies		1,600
31	Insurance Expense	1,500	
	Prepaid Insurance		1,500
31	Depreciation Expense	900	
	Accumulated Depreciation—Office Equipment		900
31	Salaries Expense	1,100	
	Salaries Payable		1,100
31	Unearned Rent Revenue	900	
	Rent Revenue		900

EXERCISE 3-14

GARCIA COMPANY
Income Statement
For the Year Ended August 31, 2011

Revenues		
Service revenue		€35,000
Rent revenue		11,900
Total revenues		46,900
Expenses		
Salaries expense	€18,100	
Rent expense	15,000	
Office supplies expense	1,600	
Insurance expense	1,500	
Depreciation expense	900	
Total expenses		37,100
Net income		€ 9,800

EXERCISE 3-14 (Continued)

GARCIA COMPANY
Retained Earnings Statement
For the Year Ended August 31, 2011

Retained Earnings, September 1, 2010	€ 5,600
Add: Net income	9,800
Retained Earnings, August 31, 2011	€15,400

GARCIA COMPANY
Statement of Financial Position
August 31, 2011

Assets

Office equipment	€14,000	
Less: Accum. depreciation—office equipment	4,500	€ 9,500
Prepaid insurance		2,500
Office supplies		700
Accounts receivable		9,800
Cash		10,400
Total assets		€32,900

Equity and Liabilities

Equity		
Share capital—ordinary	€10,000	
Retained earnings	15,400	€25,400
Liabilities		
Accounts payable	5,800	
Salaries payable	1,100	
Unearned rent revenues	600	7,500
Total equity and liabilities		€32,900

EXERCISE 3-15

(a)	1. Cash	9,000	
	Fees Receivable		9,000
	2. Unearned Fees	25,000	
	Fees Revenue		25,000
	3. (a) Cash	35,000	
	Unearned Fees		35,000
	(b) Unearned Fees ($35,000 – $17,000)	18,000	
	Fees Revenue		18,000
	4. Fees Receivable	110,000	
	Fees Revenue ($153,000 – $25,000 – $18,000)		110,000
	5. Cash	96,000	
	Fees Receivable ($110,000 – $14,000)		96,000

(b) Cash received with respect to fees = $9,000 + $96,000 + $35,000
= $140,000

EXERCISE 3-16

(a)	Cash received from services provided	R$22,000
	Cash paid for expenses	(13,000)
	Cash paid for prepaid insurance	(2,600)
	Cash flow from operations	R$ 6,400
(b)	Service revenue	R$30,000
	Operating expenses	15,500
	Net income	R$14,500

(c) Under the accrual basis, companies record transactions that change a company's and financial statements in the period in which the events occur. Cash basis accounting fails to record revenue that a company has earned but has not collected the cash. Also it does not match expenses with earned revenue.

*EXERCISE 3-17

		Debit	Credit
1.	Prepaid Insurance	875	
	Insurance Expense ($2,100 X 5/12)		875
2.	Consulting Revenue	30,000	
	Unearned Consulting Revenue ($40,000 X 3/4)		30,000
3.	Supplies	800	
	Supplies Expense		800

*EXERCISE 3-18

(a)	Jan.	2	Insurance Expense	1,800	
			Cash		1,800
		10	Supplies Expense	1,700	
			Cash		1,700
		15	Cash	6,100	
			Service Revenue		6,100

Insurance Expense

1/2	1,800		

Supplies Expense

1/10	1,700		

Cash

1/15	6,100	1/2	1,800
		1/10	1,700

Service Revenue

		1/15	6,100

*EXERCISE 3-18 (Continued)

(b)	Jan. 31	Prepaid Insurance (€150 X 11 months)	1,650	
		Insurance Expense		1,650
	31	Supplies	800	
		Supplies Expense		800
	31	Service Revenue	3,600	
		Unearned Revenue		3,600

Insurance Expense

1/2	1,800	1/31	1,650
Bal.	150		

Supplies Expense

1/10	1,700	1/31	800
Bal.	900		

Service Revenue

1/31	3,600	1/15	6,100
		Bal.	2,500

Prepaid Insurance

1/31	1,650		

Supplies

1/31	800		

Unearned Revenue

		1/31	3,600

(c)	Insurance expense	€ 150
	Supplies expense	900
	Service revenue	2,500
	Prepaid insurance	1,650
	Supplies	800
	Unearned revenue	3,600

SOLUTIONS TO PROBLEMS

PROBLEM 3-1A

(a)

J3

Date		Account Titles and Explanation	Ref.	Debit	Credit
2011					
June	30	Supplies Expense	631	1,400	
		Supplies	126		1,400
		($2,000 – $600)			
	30	Utilities Expense	732	150	
		Utilities Payable	244		150
	30	Insurance Expense	722	250	
		Prepaid Insurance	130		250
		($3,000 ÷ 12 months)			
	30	Unearned Service Revenue	209	2,500	
		Service Revenue	400		2,500
	30	Salaries Expense	726	2,000	
		Salaries Payable	212		2,000
	30	Depreciation Expense	711	250	
		Accumulated Depreciation— Office Equipment	158		250
		($15,000 ÷ 60 months)			
	30	Accounts Receivable	112	1,000	
		Service Revenue	400		1,000

(b)

Cash No. 101

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
June	30	Balance	✓			7,150

PROBLEM 3-1A (Continued)

Accounts Receivable — **No. 112**

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
June	30	Balance	✓			6,000
	30	Adjusting	J3	1,000		7,000

Supplies — **No. 126**

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
June	30	Balance	✓			2,000
	30	Adjusting	J3		1,400	600

Prepaid Insurance — **No. 130**

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
June	30	Balance	✓			3,000
	30	Adjusting	J3		250	2,750

Office Equipment — **No. 157**

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
June	30	Balance	✓			15,000

Accumulated Depreciation—Office Equipment — **No. 158**

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
June	30	Adjusting	J3		250	250

Accounts Payable — **No. 201**

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
June	30	Balance	✓			4,500

PROBLEM 3-1A (Continued)

Unearned Service Revenue — **No. 209**

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
June	30	Balance	✓			4,000
	30	Adjusting	J3	2,500		1,500

Salaries Payable — **No. 212**

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
June	30	Adjusting	J3		2,000	2,000

Utilities Payable — **No. 244**

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
June	30	Adjusting	J3		150	150

Share Capital—Ordinary — **No. 311**

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
June	30	Balance	✓			21,750

Service Revenue — **No. 400**

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
June	30	Balance	✓			7,900
	30	Adjusting	J3		2,500	10,400
	30	Adjusting	J3		1,000	11,400

Supplies Expense — **No. 631**

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
June	30	Adjusting	J3	1,400		1,400

PROBLEM 3-1A (Continued)

Depreciation Expense **No. 711**

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
June	30	Adjusting	J3	250		250

Insurance Expense **No. 722**

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
June	30	Adjusting	J3	250		250

Salaries Expense **No. 726**

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
June	30	Balance	✓			4,000
	30	Adjusting	J3	2,000		6,000

Rent Expense **No. 729**

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
June	30	Balance	✓			1,000

Utilities Expense **No. 732**

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
June	30	Adjusting	J3	150		150

PROBLEM 3-1A (Continued)

(c)

MASASI COMPANY, INC.
Adjusted Trial Balance
June 30, 2011

	Debit	Credit
Cash	$ 7,150	
Accounts Receivable	7,000	
Supplies	600	
Prepaid Insurance	2,750	
Office Equipment	15,000	
Accumulated Depreciation—Office Equipment		$ 250
Accounts Payable		4,500
Unearned Service Revenue		1,500
Salaries Payable		2,000
Utilities Payable		150
Share Capital—Ordinary		21,750
Service Revenue		11,400
Supplies Expense	1,400	
Depreciation Expense	250	
Insurance Expense	250	
Salaries Expense	6,000	
Rent Expense	1,000	
Utilities Expense	150	
	$41,550	$41,550

PROBLEM 3-2A

(a)

J1

Date		Account Titles and Explanation	Ref.	Debit	Credit
Aug.	31	Insurance Expense (€400 X 3)	722	1,200	
		Prepaid Insurance	130		1,200
	31	Supplies Expense (€3,300 – €600)	631	2,700	
		Supplies	126		2,700
	31	Depreciation Expense—Cottages (€6,000 X 1/4)	620	1,500	
		Accumulated Depreciation—Cottages	144		1,500
	31	Depreciation Expense—Furniture (€2,400 X 1/4)	621	600	
		Accumulated Depreciation—Furniture	150		600
	31	Unearned Rent Revenue	209	4,100	
		Rent Revenue	429		4,100
	31	Salaries Expense	726	400	
		Salaries Payable	212		400
	31	Accounts Receivable	112	1,000	
		Rent Revenue	429		1,000
	31	Interest Expense	718	600	
		Interest Payable [(€80,000 X 9%) X 1/12]	230		600

(b)

Cash No. 101

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Balance	✓			19,600

PROBLEM 3-2A (Continued)

Accounts Receivable **No. 112**

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Adjusting	J1	1,000		1,000

Supplies **No. 126**

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Balance	✓			3,300
	31	Adjusting	J1		2,700	600

Prepaid Insurance **No. 130**

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Balance	✓			6,000
	31	Adjusting	J1		1,200	4,800

Land **No. 140**

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Balance	✓			25,000

Cottages **No. 143**

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Balance	✓			125,000

Accumulated Depreciation—Cottages **No. 144**

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Adjusting	J1		1,500	1,500

Furniture **No. 149**

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Balance	✓			26,000

Accumulated Depreciation—Furniture **No. 150**

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Adjusting	J1		600	600

Accounts Payable **No. 201**

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Balance	✓			6,500

Unearned Rent Revenue **No. 209**

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Balance	✓			7,400
	31	Adjusting	J1	4,100		3,300

Salaries Payable **No. 212**

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Adjusting	J1		400	400

Interest Payable **No. 230**

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Adjusting	J1		600	600

Mortgage Payable **No. 275**

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Balance	✓			80,000

Share Capital—Ordinary **No. 311**

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Balance	✓			100,000

PROBLEM 3-2A (Continued)

Dividends **No. 332**

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Balance	✓			5,000

Rent Revenue **No. 429**

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Balance	✓			80,000
	31	Adjusting	J1		4,100	84,100
	31	Adjusting	J1		1,000	85,100

Depreciation Expense—Cottages **No. 620**

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Adjusting	J1	1,500		1,500

Depreciation Expense—Furniture **No. 621**

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Adjusting	J1	600		600

Repair Expense **No. 622**

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Balance	✓			3,600

Supplies Expense **No. 631**

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Adjusting	J1	2,700		2,700

Interest Expense **No. 718**

Date		Explanation	Ref.	Debit	Credit	Balance
Aug.	31	Adjusting	J1	600		600

PROBLEM 3-2A (Continued)

Insurance Expense					No. 722
Date	**Explanation**	**Ref.**	**Debit**	**Credit**	**Balance**
Aug. 31	Adjusting	J1	1,200		1,200

Salaries Expense					No. 726
Date	**Explanation**	**Ref.**	**Debit**	**Credit**	**Balance**
Aug. 31	Balance	✓			51,000
31	Adjusting	J1	400		51,400

Utilities Expense					No. 732
Date	**Explanation**	**Ref.**	**Debit**	**Credit**	**Balance**
Aug. 31	Balance	✓			9,400

PROBLEM 3-2A (Continued)

(c)

NEOSHO RIVER RESORT, INC.
Adjusted Trial Balance
August 31, 2011

	Debit	Credit
Cash	€ 19,600	
Accounts Receivable	1,000	
Supplies	600	
Prepaid Insurance	4,800	
Land	25,000	
Cottages	125,000	
Accumulated Depreciation—Cottages		€ 1,500
Furniture	26,000	
Accumulated Depreciation—Furniture		600
Accounts Payable		6,500
Unearned Rent Revenue		3,300
Salaries Payable		400
Interest Payable		600
Mortgage Payable		80,000
Share Capital—Ordinary		100,000
Dividends	5,000	
Rent Revenue		85,100
Depreciation Expense—Cottages	1,500	
Depreciation Expense—Furniture	600	
Repair Expense	3,600	
Supplies Expense	2,700	
Interest Expense	600	
Insurance Expense	1,200	
Salaries Expense	51,400	
Utilities Expense	9,400	
	€278,000	€278,000

(d)

NEOSHO RIVER RESORT, INC.
Income Statement
For the Three Months Ended August 31, 2011

Revenues		
Rent revenue		€ 85,100
Expenses		
Salaries expense	€51,400	
Utilities expense	9,400	
Repair expense	3,600	
Supplies expense	2,700	
Depreciation expense—cottages	1,500	
Insurance expense	1,200	
Interest expense	600	
Depreciation expense—furniture	600	
Total expenses		71,000
Net income		€ 14,100

NEOSHO RIVER RESORT, INC.
Retained Earnings Statement
For the Three Months Ended August 31, 2011

Retained Earnings, June 1	€ 0
Add: Net income	14,100
	14,100
Less: Dividends	5,000
Retained Earnings, August 31	€ 9,100

PROBLEM 3-2A (Continued)

NEOSHO RIVER RESORT, INC.
Statement of Financial Position
August 31, 2011

Assets

Land		€ 25,000
Cottages	€125,000	
Less: Accum. depreciation—cottages	1,500	123,500
Furniture	26,000	
Less: Accum. depreciation—furniture	600	25,400
Prepaid insurance		4,800
Supplies		600
Accounts receivable		1,000
Cash		19,600
Total assets		€199,900

Equity and Liabilities

Equity		
Share capital—ordinary	€100,000	
Retained earnings	9,100	€109,100
Liabilities		
Accounts payable	€ 6,500	
Mortgage payable	80,000	
Unearned rent revenue	3,300	
Interest payable	600	
Salaries payable	400	90,800
Total equity and liabilities		€199,900

PROBLEM 3-3A

(a)

Dec. 31	Accounts Receivable		2,500	
		Advertising Revenue		2,500
31	Unearned Advertising Fees		1,600	
		Advertising Revenue		1,600
31	Art Supplies Expense		3,600	
		Art Supplies		3,600
31	Depreciation Expense		6,000	
		Accumulated Depreciation		6,000
31	Interest Expense		150	
		Interest Payable		150
31	Insurance Expense		850	
		Prepaid Insurance		850
31	Salaries Expense		1,300	
		Salaries Payable		1,300

(b)

FERNETTI ADVERTISING AGENCY, INC.
Income Statement
For the Year Ended December 31, 2011

Revenues		
Advertising revenue		$62,700
Expenses		
Salaries expense	$11,300	
Depreciation expense	6,000	
Rent expense	4,000	
Art supplies expense	3,600	
Insurance expense	850	
Interest expense	500	
Total expenses		26,250
Net income		$36,450

FERNETTI ADVERTISING AGENCY, INC.
Retained Earnings Statement
For the Year Ended December 31, 2011

Retained Earnings, January 1	$ 500
Add: Net income	36,450
	36,950
Less: Dividends	12,000
Retained Earnings, December 31	$24,950

FERNETTI ADVERTISING AGENCY, INC.
Statement of Financial Position
December 31, 2011

Assets		
Printing equipment	$60,000	
Less: Accumulated depreciation	34,000	$26,000
Prepaid insurance		2,500
Art supplies		5,000
Accounts receivable		22,500
Cash		11,000
Total assets		$67,000
Equity and Liabilities		
Equity		
Share capital—ordinary	$25,000	
Retained earnings	24,950	$49,950
Liabilities		
Notes payable	5,000	
Accounts payable	5,000	
Unearned advertising fees	5,600	
Salaries payable	1,300	
Interest payable	150	17,050
Total equity and liabilities		$67,000

PROBLEM 3-3A (Continued)

(c) 1. I = P X R X T

$150 = $5,000 X R X 1/2

$150 = $2,500R

$$R = \frac{\$150}{\$2,500}$$

R = 6%

2. Salaries Expense, $11,300 less Salaries Payable 12/31/11, $1,300 = $10,000. Total payments, $12,500 – $10,000 = $2,500 Salaries Payable 12/31/10.

PROBLEM 3-4A

1.	Dec. 31	Salaries Expense	2,320	
		Salaries Payable		2,320
		[5 X £800 X 2/5 = £1,600		
		3 X £600 X 2/5 = 720		
		£2,320]		
2.	31	Unearned Rent..	74,000	
		Rent Revenue		74,000
		[5 X £4,000 X 2 = £40,000		
		4 X £8,500 X 1 = 34,000		
		£74,000]		
3.	31	Advertising Expense	4,800	
		Prepaid Advertising		4,800
		[A650 – £450 per month for 8 months = £3,600		
		B974 – £400 per month for 3 months = 1,200		
		£4,800]		
4.	31	Interest Expense	6,300	
		Interest Payable		6,300
		(£120,000 X 9% X 7/12)		

PROBLEM 3-5A

(a), (c) & (e)

Cash — No. 101

Date		Explanation	Ref.	Debit	Credit	Balance
Sept.	1	Balance	✓			4,880
	8		J1		1,400	3,480
	10		J1	1,200		4,680
	12		J1	3,400		8,080
	20		J1		4,500	3,580
	22		J1		500	3,080
	25		J1		1,250	1,830
	29		J1	650		2,480

Accounts Receivable — No. 112

Date		Explanation	Ref.	Debit	Credit	Balance
Sept.	1	Balance	✓			3,520
	10		J1		1,200	2,320
	27		J1	1,500		3,820

Supplies — No. 126

Date		Explanation	Ref.	Debit	Credit	Balance
Sept.	1	Balance	✓			2,000
	17		J1	1,200		3,200
	30	Adjusting	J1		2,000	1,200

Store Equipment — No. 153

Date		Explanation	Ref.	Debit	Credit	Balance
Sept.	1	Balance	✓			15,000
	15		J1	3,000		18,000

PROBLEM 3-5A (Continued)

Accumulated Depreciation—Equipment **No. 154**

Date		Explanation	Ref.	Debit	Credit	Balance
Sept.	1	Balance	✓			1,500
	30	Adjusting	J1		100	1,600

Accounts Payable **No. 201**

Date		Explanation	Ref.	Debit	Credit	Balance
Sept.	1	Balance	✓			3,400
	15		J1		3,000	6,400
	17		J1		1,200	7,600
	20		J1	4,500		3,100

Unearned Service Revenue **No. 209**

Date		Explanation	Ref.	Debit	Credit	Balance
Sept.	1	Balance	✓			1,400
	29		J1		650	2,050
	30	Adjusting	J1	1,450		600

Salaries Payable **No. 212**

Date		Explanation	Ref.	Debit	Credit	Balance
Sept.	1	Balance	✓			500
	8		J1	500		0
	30	Adjusting	J1		400	400

Share Capital—Ordinary **No. 311**

Date		Explanation	Ref.	Debit	Credit	Balance
Sept.	1	Balance	✓			15,000

Retained Earnings **No. 320**

Date		Explanation	Ref.	Debit	Credit	Balance
Sept.	1	Balance	✓			3,600

PROBLEM 3-5A (Continued)

Service Revenue **No. 400**

Date		Explanation	Ref.	Debit	Credit	Balance
Sept.	12		J1		3,400	3,400
	27		J1		1,500	4,900
	30	Adjusting	J1		1,450	6,350

Depreciation Expense **No. 615**

Date		Explanation	Ref.	Debit	Credit	Balance
Sept.	30	Adjusting	J1	100		100

Supplies Expense **No. 631**

Date		Explanation	Ref.	Debit	Credit	Balance
Sept.	30	Adjusting	J1	2,000		2,000

Salaries Expense **No. 726**

Date		Explanation	Ref.	Debit	Credit	Balance
Sept.	8		J1	900		900
	25		J1	1,250		2,150
	30	Adjusting	J1	400		2,550

Rent Expense **No. 729**

Date		Explanation	Ref.	Debit	Credit	Balance
Sept.	22		J1	500		500

PROBLEM 3-5A (Continued)

(b)

General Journal **J1**

Date		Account Titles	Ref.	Debit	Credit
Sept.	8	Salaries Payable	212	500	
		Salaries Expense	726	900	
		Cash	101		1,400
	10	Cash	101	1,200	
		Accounts Receivable	112		1,200
	12	Cash	101	3,400	
		Service Revenue	400		3,400
	15	Store Equipment	153	3,000	
		Accounts Payable	201		3,000
	17	Supplies	126	1,200	
		Accounts Payable	201		1,200
	20	Accounts Payable	201	4,500	
		Cash	101		4,500
	22	Rent Expense	729	500	
		Cash	101		500
	25	Salaries Expense	726	1,250	
		Cash	101		1,250
	27	Accounts Receivable	112	1,500	
		Service Revenue	400		1,500
	29	Cash	101	650	
		Unearned Service Revenue	209		650

(d) & (f)

RAND EQUIPMENT REPAIR, INC.
Trial Balances
September 30, 2011

	Before Adjustment		After Adjustment	
	Dr.	Cr.	Dr.	Cr.
Cash	£ 2,480		£ 2,480	
Accounts Receivable	3,820		3,820	
Supplies	3,200		1,200	
Store Equipment	18,000		18,000	
Accumulated Depreciation		£ 1,500		£ 1,600
Accounts Payable		3,100		3,100
Unearned Service Revenue		2,050		600
Salaries Payable		–0–		400
Share Capital—Ordinary		15,000		15,000
Retained Earnings		3,600		3,600
Service Revenue		4,900		6,350
Depreciation Expense			100	
Supplies Expense			2,000	
Salaries Expense	2,150		2,550	
Rent Expense	500		500	
	£30,150	£30,150	£30,650	£30,650

(e)

1.	Sept. 30	Supplies Expense	631	2,000	
		Supplies (£3,200 – £1,200)	126		2,000
2.	30	Salaries Expense	726	400	
		Salaries Payable	212		400
3.	30	Depreciation Expense	615	100	
		Accumulated Depreciation—Equipment	154		100
4.	30	Unearned Service Revenue	209	1,450	
		Service Revenue	400		1,450

PROBLEM 3-5A (Continued)

(g)

RAND EQUIPMENT REPAIR, INC.
Income Statement
For the Month Ended September 30, 2011

Revenues		
Service revenue		£6,350
Expenses		
Salaries expense	£2,550	
Supplies expense	2,000	
Rent expense	500	
Depreciation expense	100	
Total expenses		5,150
Net income		£1,200

RAND EQUIPMENT REPAIR, INC.
Retained Earnings Statement
For the Month Ended September 30, 2011

Retained Earnings, September 1	£3,600
Add: Net income	1,200
Retained Earnings, September 30	£4,800

PROBLEM 3-5A (Continued)

RAND EQUIPMENT REPAIR, INC.
Statement of Financial Position
September 30, 2011

Assets		
Equipment	£18,000	
Less: Accumulated depreciation—equipment	1,600	£16,400
Supplies		1,200
Accounts receivable		3,820
Cash		2,480
Total assets		£23,900
Equity and Liabilities		
Equity		
Share capital—ordinary	£15,000	
Retained earnings	4,800	£19,800
Liabilities		
Accounts payable	3,100	
Unearned service revenue	600	
Salaries payable	400	4,100
Total equity and liabilities		£23,900

*PROBLEM 3-6A

(a)	1.	June 30	Supplies	1,300	
			Supplies Expense		1,300
	2.	30	Interest Expense	750	
			($20,000 X 9% X 5/12)		
			Interest Payable		750
	3.	30	Prepaid Insurance	1,200	
			[($1,800 ÷ 12) X 8]		
			Insurance Expense		1,200
	4.	30	Consulting Revenue	1,500	
			Unearned Consulting Revenue		1,500
	5.	30	Accounts Receivable	2,000	
			Graphic Revenue		2,000
	6.	30	Depreciation Expense	1,000	
			($2,000 ÷ 2)		
			Accumulated Depreciation—Equipment		1,000

(b)

GIVENS GRAPHICS COMPANY, INC.
Adjusted Trial Balance
June 30, 2011

	Debit	Credit
Cash	$ 9,500	
Accounts Receivable ($14,000 + $2,000)	16,000	
Supplies	1,300	
Prepaid Insurance	1,200	
Equipment	45,000	
Accumulated Depreciation		$ 1,000
Notes Payable		20,000
Accounts Payable		9,000
Interest Payable		750
Unearned Consulting Revenue		1,500
Share Capital—Ordinary		22,000
Graphic Revenue ($52,100 + $2,000)		54,100
Consulting Revenue ($6,000 – $1,500)		4,500
Salaries Expense	30,000	
Supplies Expense ($3,700 – $1,300)	2,400	
Advertising Expense	1,900	
Rent Expense	1,500	
Utilities Expense	1,700	
Depreciation Expense	1,000	
Insurance Expense ($1,800 – $1,200)	600	
Interest Expense	750	
	$112,850	$112,850

(c)

GIVENS GRAPHICS COMPANY, INC.
Income Statement
For the Six Months Ended June 30, 2011

Revenues		
Graphic revenue		$54,100
Consulting revenue		4,500
Total revenues		58,600
Expenses		
Salaries expense	$30,000	
Supplies expense	2,400	
Advertising expense	1,900	
Utilities expense	1,700	
Rent expense	1,500	
Depreciation expense	1,000	
Interest expense	750	
Insurance expense	600	
Total expenses		39,850
Net income		$18,750

GIVENS GRAPHICS COMPANY, INC.
Retained Earnings Statement
For the Six Months Ended June 30, 2011

Retained Earnings, January 1	$ 0
Add: Net income	18,750
Retained Earnings, June 30	$18,750

GIVENS GRAPHICS COMPANY, INC.
Statement of Financial Position
June 30, 2011

Assets

Equipment	$45,000	
Less: Accumulated depreciation	1,000	$44,000
Prepaid insurance		1,200
Supplies		1,300
Accounts receivable		16,000
Cash		9,500
Total assets		$72,000

Equity and Liabilities

Equity		
Share capital—ordinary	$22,000	
Retained earnings	18,750	$40,750
Liabilities		
Notes payable	20,000	
Accounts payable	9,000	
Unearned consulting revenue	1,500	
Interest payable	750	31,250
Total equity and liabilities		$72,000

PROBLEM 3-1B

(a)

J4

Date		Account Titles	Ref.	Debit	Credit
2011					
May	31	Supplies Expense	631	900	
		Supplies	126		900
	31	Travel Expense	736	250	
		Travel Payable	229		250
	31	Insurance Expense	722	150	
		Prepaid Insurance	130		150
		(R$3,600 ÷ 24 months)			
	31	Unearned Service Revenue	209	1,600	
		Service Revenue	400		1,600
		(R$2,000 – R$400)			
	31	Salaries Expense	726	960	
		Salaries Payable	212		960
		[(3/5 X R$800) X 2 employees]			
	31	Depreciation Expense	717	170	
		Accumulated Depreciation—			
		Office Furniture	150		170
		(R$10,200 ÷ 60 months)			
	31	Accounts Receivable	112	1,200	
		Service Revenue	400		1,200

(b)

Cash — No. 101

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
May	31	Balance	✓			5,700

PROBLEM 3-1B (Continued)

Accounts Receivable — No. 112

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
May	31	Balance	✓			6,000
	31	Adjusting	J4	1,200		7,200

Supplies — No. 126

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
May	31	Balance	✓			1,900
	31	Adjusting	J4		900	1,000

Prepaid Insurance — No. 130

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
May	31	Balance	✓			3,600
	31	Adjusting	J4		150	3,450

Office Furniture — No. 149

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
May	31	Balance	✓			10,200

Accumulated Depreciation—Office Furniture — No. 150

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
May	31	Adjusting	J4		170	170

Accounts Payable — No. 201

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
May	31	Balance	✓			4,500

PROBLEM 3-1B (Continued)

Unearned Service Revenue						No. 209
Date		Explanation	Ref.	Debit	Credit	Balance
2011						
May	31	Balance	✓			2,000
	31	Adjusting	J4	1,600		400

Salaries Payable						No. 212
Date		Explanation	Ref.	Debit	Credit	Balance
2011						
May	31	Adjusting	J4		960	960

Travel Payable						No. 229
Date		Explanation	Ref.	Debit	Credit	Balance
2011						
May	31	Adjusting	J4		250	250

Share Capital—Ordinary						No. 311
Date		Explanation	Ref.	Debit	Credit	Balance
2011						
May	31	Balance	✓			17,700

Service Revenue						No. 400
Date		Explanation	Ref.	Debit	Credit	Balance
2011						
May	31	Balance	✓			7,500
	31	Adjusting	J4		1,600	9,100
	31	Adjusting	J4		1,200	10,300

Supplies Expense						No. 631
Date		Explanation	Ref.	Debit	Credit	Balance
2011						
May	31	Adjusting	J4	900		900

PROBLEM 3-1B (Continued)

Depreciation Expense					No. 717
Date	Explanation	Ref.	Debit	Credit	Balance
2011					
May 31	Adjusting	J4	170		170

Insurance Expense					No. 722
Date	Explanation	Ref.	Debit	Credit	Balance
2011					
May 31	Adjusting	J4	150		150

Salaries Expense					726
Date	Explanation	Ref.	Debit	Credit	Balance
2011					
May 31	Balance	✓			3,400
31	Adjusting	J4	960		4,360

Rent Expense					No. 729
Date	Explanation	Ref.	Debit	Credit	Balance
2011					
May 31	Balance	✓			900

Travel Expense					No. 736
Date	Explanation	Ref.	Debit	Credit	Balance
2011					
May 31	Adjusting	J4	250		250

PROBLEM 3-1B (Continued)

(c)

LULA CONSULTING, INC.
Adjusted Trial Balance
May 31, 2011

	Debit	Credit
Cash	R$ 5,700	
Accounts Receivable	7,200	
Supplies	1,000	
Prepaid Insurance	3,450	
Office Furniture	10,200	
Accumulated Depreciation—Office Furniture		R$ 170
Accounts Payable		4,500
Unearned Service Revenue		400
Salaries Payable		960
Travel Payable		250
Share Capital—Ordinary		17,700
Service Revenue		10,300
Supplies Expenses	900	
Depreciation Expenses	170	
Insurance Expenses	150	
Salaries Expenses	4,360	
Rent Expenses	900	
Travel Expenses	250	
	R$34,280	R$34,280

PROBLEM 3-2B

(a)

J1

Date		Account Titles	Ref.	Debit	Credit
May	31	Insurance Expense	722	190	
		Prepaid Insurance	130		190
		($2,280 X 1/12)			
	31	Supplies Expense	631	1,450	
		Supplies ($2,200 – $750)	126		1,450
	31	Depreciation Expense—Lodge	619	250	
		($3,000 X 1/12)			
		Accumulated Depreciation—			
		Lodge	142		250
	31	Depreciation Expense—Furniture	621	225	
		($2,700 X 1/12)			
		Accumulated Depreciation—			
		Furniture	150		225
	31	Interest Expense	718	350	
		Interest Payable	230		350
		[($35,000 X 12%) X 1/12]			
	31	Unearned Rent Revenue	209	2,200	
		Rent Revenue	429		2,200
		(2/3 X $3,300)			
	31	Salaries Expense	726	750	
		Salaries Payable	212		750

(b)

Cash — No. 101

Date	Explanation	Ref.	Debit	Credit	Balance
May 31	Balance	✓			3,500

PROBLEM 3-2B (Continued)

Supplies						No. 126
Date		Explanation	Ref.	Debit	Credit	Balance
May	31	Balance	✓			2,200
	31	Adjusting	J1		1,450	750

Prepaid Insurance						No. 130
Date		Explanation	Ref.	Debit	Credit	Balance
May	31	Balance	✓			2,280
	31	Adjusting	J1		190	2,090

Land						No. 140
Date		Explanation	Ref.	Debit	Credit	Balance
May	31	Balance	✓			12,000

Lodge						No. 141
Date		Explanation	Ref.	Debit	Credit	Balance
May	31	Balance	✓			60,000

Accumulated Depreciation—Lodge						No. 142
Date		Explanation	Ref.	Debit	Credit	Balance
May	31	Adjusting	J1		250	250

Furniture						No. 149
Date		Explanation	Ref.	Debit	Credit	Balance
May	31	Balance	✓			15,000

Accumulated Depreciation—Furniture						No. 150
Date		Explanation	Ref.	Debit	Credit	Balance
May	31	Adjusting	J1		225	225

PROBLEM 3-2B (Continued)

Accounts Payable						No. 201
Date		Explanation	Ref.	Debit	Credit	Balance
May	31	Balance	✓			4,800

Unearned Rent Revenue						No. 209
Date		Explanation	Ref.	Debit	Credit	Balance
May	31	Balance	✓			3,300
	31	Adjusting	J1	2,200		1,100

Salaries Payable						No. 212
Date		Explanation	Ref.	Debit	Credit	Balance
May	31	Adjusting	J1		750	750

Interest Payable						No. 230
Date		Explanation	Ref.	Debit	Credit	Balance
May	31	Adjusting	J1		350	350

Mortgage Payable						No. 275
Date		Explanation	Ref.	Debit	Credit	Balance
May	31	Balance	✓			35,000

Share Capital—Ordinary						No. 311
Date		Explanation	Ref.	Debit	Credit	Balance
May	31	Balance	✓			46,380

Rent Revenue						No. 429
Date		Explanation	Ref.	Debit	Credit	Balance
May	31	Balance	✓			10,300
	31	Adjusting	J1		2,200	12,500

PROBLEM 3-2B (Continued)

Advertising Expense — **No. 610**

Date		Explanation	Ref.	Debit	Credit	Balance
May	31	Balance	✓			600

Depreciation Expense—Lodge — **No. 619**

Date		Explanation	Ref.	Debit	Credit	Balance
May	31	Adjusting	J1	250		250

Depreciation Expense—Furniture — **No. 621**

Date		Explanation	Ref.	Debit	Credit	Balance
May	31	Adjusting	J1	225		225

Supplies Expense — **No. 631**

Date		Explanation	Ref.	Debit	Credit	Balance
May	31	Adjusting	J1	1,450		1,450

Interest Expense — **No. 718**

Date		Explanation	Ref.	Debit	Credit	Balance
May	31	Adjusting	J1	350		350

Insurance Expense — **No. 722**

Date		Explanation	Ref.	Debit	Credit	Balance
May	31	Adjusting	J1	190		190

Salaries Expense — **No. 726**

Date		Explanation	Ref.	Debit	Credit	Balance
May	31	Balance	✓			3,300
	31	Adjusting	J1	750		4,050

Utilities Expense **No. 732**

Date	Explanation	Ref.	Debit	Credit	Balance
May 31	Balance	✓			900

(c)

MOUND VIEW MOTEL, INC.
Adjusted Trial Balance
May 31, 2011

	Debit	Credit
Cash	$ 3,500	
Supplies	750	
Prepaid Insurance	2,090	
Land	12,000	
Lodge	60,000	
Accumulated Depreciation—Lodge		$ 250
Furniture	15,000	
Accumulated Depreciation—Furniture		225
Accounts Payable		4,800
Unearned Rent Revenue		1,100
Salaries Payable		750
Interest Payable		350
Mortgage Payable		35,000
Share Capital—Ordinary		46,380
Rent Revenue		12,500
Advertising Expense	600	
Depreciation Expense—Lodge	250	
Depreciation Expense—Furniture	225	
Supplies Expense	1,450	
Interest Expense	350	
Insurance Expense	190	
Salaries Expense	4,050	
Utilities Expense	900	
	$101,355	$101,355

PROBLEM 3-2B (Continued)

(d)

MOUND VIEW MOTEL, INC.
Income Statement
For the Month Ended May 31, 2011

Revenues		
Rent revenue		$12,500
Expenses		
Salaries expense	$4,050	
Supplies expense	1,450	
Utilities expense	900	
Advertising expense	600	
Interest expense	350	
Depreciation expense—lodge	250	
Depreciation expense—furniture	225	
Insurance expense	190	
Total expenses		8,015
Net income		$ 4,485

MOUND VIEW MOTEL, INC.
Retained Earnings Statement
For the Month Ended May 31, 2011

Retained Earnings, May 1	$ 0
Add: Net income	4,485
Retained Earnings, May 31	$4,485

MOUND VIEW MOTEL, INC.
Statement of Financial Position
May 31, 2011

Assets		
Land		$12,000
Lodge	$60,000	
Less: Accumulated depreciation—lodge	250	59,750
Furniture	15,000	
Less: Accumulated depreciation—furniture	225	14,775
Prepaid insurance		2,090
Supplies		750
Cash		3,500
Total assets		$92,865
Equity and Liabilities		
Equity		
Share capital—ordinary	$46,380	
Retained earnings	4,485	$50,865
Liabilities		
Accounts payable	4,800	
Mortgage payable	35,000	
Unearned rent	1,100	
Salaries payable	750	
Interest payable	350	42,000
Total equity and liabilities		$92,865

PROBLEM 3-3B

(a)

Sept. 30	Accounts Receivable		800	
	Commission Revenue			800
30	Rent Expense		900	
	Prepaid Rent			900
30	Supplies Expense		600	
	Supplies			600
30	Depreciation Expense		500	
	Accum. Depreciation—Equipment			500
30	Interest Expense		100	
	Interest Payable			100
30	Unearned Rent Revenue		850	
	Rent Revenue			850
30	Salaries Expense		725	
	Salaries Payable			725

(b)

BERN CO., INC.
Income Statement
For the Quarter Ended September 30, 2011

Revenues		
Commission revenue		CHF16,800
Rent revenue		2,260
Total revenues		19,060
Expenses		
Salaries expense	CHF8,725	
Rent expense	2,800	
Utilities expense	1,510	
Supplies expense	600	
Depreciation expense	500	
Interest expense	100	
Total expenses		14,235
Net income		CHF 4,825

BERN CO., INC.
Retained Earnings Statement
For the Quarter Ended September 30, 2011

Retained Earnings, July 1, 2011	CHF 0
Add: Net income	4,825
	4,825
Less: Dividends	1,600
Retained Earnings, September 30, 2011	CHF3,225

BERN CO., INC.
Statement of Financial Position
September 30, 2011

Assets		
Equipment	CHF18,000	
Less: Accum. depreciation—equipment	500	CHF17,500
Prepaid rent		1,300
Supplies		900
Accounts receivable		11,200
Cash		8,700
Total assets		CHF39,600
Equity and Liabilities		
Equity		
Share capital—ordinary	CHF22,000	
Retained earnings	3,225	
Total equity		CHF25,225
Liabilities		
Notes payable	10,000	
Accounts payable	2,500	
Salaries payable	725	
Unearned rent revenue	1,050	
Interest payable	100	
Total liabilities		14,375
Total equity and liabilities		CHF39,600

(c) Interest of 12% per year equals a monthly rate of 1%; monthly interest is CHF100 (CHF10,000 X 1%). Since total interest expense is CHF100, the note has been outstanding one month.

PROBLEM 3-4B

1.	Dec. 31	Insurance Expense	4,650	
		Prepaid Insurance		4,650
		[(€7,200 ÷ 3) = €2,400		
		(€4,500 ÷ 2) = 2,250		
		€4,650]		
2.	Dec. 31	Unearned Subscriptions	6,375	
		Subscription Revenue		6,375
		[Oct. 200 X €45 X 3/12 = €2,250		
		Nov. 300 X €45 X 2/12 = 2,250		
		Dec. 500 X €45 X 1/12 = 1,875		
		€6,375]		
3.	Dec. 31	Interest Expense	1,500	
		Interest Payable		1,500
		(€100,000 X 9% X 2/12)		
4.	Dec. 31	Salaries Expense	2,000	
		Salaries Payable		2,000
		[5 X €700 X 2/5 = €1,400		
		3 X €500 X 2/5 = 600		
		€2,000]		

PROBLEM 3-5B

(a), (c) & (e)

Cash — **No. 101**

Date		Explanation	Ref.	Debit	Credit	Balance
Nov.	1	Balance	✓			2,400
	8		J1		1,700	700
	10		J1	3,420		4,120
	12		J1	3,100		7,220
	20		J1		2,700	4,520
	22		J1		400	4,120
	25		J1		1,700	2,420
	29		J1	600		3,020

Accounts Receivable — **No. 112**

Date		Explanation	Ref.	Debit	Credit	Balance
Nov.	1	Balance	✓			4,250
	10		J1		3,420	830
	27		J1	900		1,730

Supplies — **No. 126**

Date		Explanation	Ref.	Debit	Credit	Balance
Nov.	1	Balance	✓			1,800
	17		J1	700		2,500
	30	Adjusting	J1		1,300	1,200

Store Equipment — **No. 153**

Date		Explanation	Ref.	Debit	Credit	Balance
Nov.	1	Balance	✓			12,000
	15		J1	2,000		14,000

PROBLEM 3-5B (Continued)

Accumulated Depreciation—Store Equipment **No. 154**

Date		Explanation	Ref.	Debit	Credit	Balance
Nov.	1	Balance	✓			2,000
	30	Adjusting	J1		200	2,200

Accounts Payable **No. 201**

Date		Explanation	Ref.	Debit	Credit	Balance
Nov.	1	Balance	✓			2,600
	15		J1		2,000	4,600
	17		J1		700	5,300
	20		J1	2,700		2,600

Unearned Service Revenue **No. 209**

Date		Explanation	Ref.	Debit	Credit	Balance
Nov.	1	Balance	✓			1,200
	29		J1		600	1,800
	30	Adjusting	J1	1,250		550

Salaries Payable **No. 212**

Date		Explanation	Ref.	Debit	Credit	Balance
Nov.	1	Balance	✓			700
	8		J1	700		0
	30	Adjusting	J1		400	400

Share Capital—Ordinary **No. 311**

Date		Explanation	Ref.	Debit	Credit	Balance
Nov.	1	Balance	✓			10,000

Retained Earnings **No. 320**

Date		Explanation	Ref.	Debit	Credit	Balance
Nov.	1	Balance	✓			3,950

PROBLEM 3-5B (Continued)

Service Revenue						No. 400
Date		Explanation	Ref.	Debit	Credit	Balance
Nov.	12		J1		3,100	3,100
	27		J1		900	4,000
	30	Adjusting	J1		1,250	5,250

Depreciation Expense						No. 615
Date		Explanation	Ref.	Debit	Credit	Balance
Nov.	30	Adjusting	J1	200		200

Supplies Expense						No. 631
Date		Explanation	Ref.	Debit	Credit	Balance
Nov.	30	Adjusting	J1	1,300		1,300

Salaries Expense						No. 726
Date		Explanation	Ref.	Debit	Credit	Balance
Nov.	8		J1	1,000		1,000
	25		J1	1,700		2,700
	30	Adjusting	J1	400		3,100

Rent Expense						No. 729
Date		Explanation	Ref.	Debit	Credit	Balance
Nov.	22		J1	400		400

PROBLEM 3-5B (Continued)

(b) **General Journal**

J1

Date		Account Titles and Explanation	Ref.	Debit	Credit
Nov.	8	Salaries Payable	212	700	
		Salaries Expense	726	1,000	
		Cash	101		1,700
	10	Cash	101	3,420	
		Accounts Receivable	112		3,420
	12	Cash	101	3,100	
		Service Revenue	400		3,100
	15	Store Equipment	153	2,000	
		Accounts Payable	201		2,000
	17	Supplies	126	700	
		Accounts Payable	201		700
	20	Accounts Payable	201	2,700	
		Cash	101		2,700
	22	Rent Expense	729	400	
		Cash	101		400
	25	Salaries Expense	726	1,700	
		Cash	101		1,700
	27	Accounts Receivable	112	900	
		Service Revenue	400		900
	29	Cash	101	600	
		Unearned Service Revenue	209		600

PROBLEM 3-5B (Continued)

(d) & (f)

MORELLI EQUIPMENT REPAIR
Trial Balances
November 30, 2011

	Before Adjustment		After Adjustment	
	Dr.	Cr.	Dr.	Cr.
Cash	$ 3,020		$ 3,020	
Accounts Receivable	1,730		1,730	
Supplies	2,500		1,200	
Store Equipment	14,000		14,000	
Accumulated Depreciation		$ 2,000		$ 2,200
Accounts Payable		2,600		2,600
Unearned Service Revenue		1,800		550
Salaries Payable		–0–		400
Share Capital—Ordinary		10,000		10,000
Retained Earnings		3,950		3,950
Service Revenue		4,000		5,250
Depreciation Expense			200	
Supplies Expense			1,300	
Salaries Expense	2,700		3,100	
Rent Expense	400		400	
	$24,350	$24,350	$24,950	$24,950

(e)

1.	Nov. 30	Supplies Expense	631	1,300	
		Supplies ($2,500 – $1,200)	126		1,300
2.	30	Salaries Expense	726	400	
		Salaries Payable	212		400
3.	30	Depreciation Expense	615	200	
		Accumulated Depreciation—Store Equipment	154		200
4.	30	Unearned Service Revenue	209	1,250	
		Service Revenue	400		1,250

PROBLEM 3-5B (Continued)

(g)

MORELLI EQUIPMENT REPAIR
Income Statement
For the Month Ended November 30, 2011

Revenues		
Service revenue		$5,250
Expenses		
Salaries expense	$3,100	
Supplies expense	1,300	
Rent expense	400	
Depreciation expense	200	
Total expenses		5,000
Net Income		$ 250

MORELLI EQUIPMENT REPAIR
Retained Earnings Statement
For the Month Ended November 30, 2011

Retained Earnings, November 1	$3,950
Plus: Net income	250
Retained Earnings, November 30	$4,200

MORELLI EQUIPMENT REPAIR
Statement of Financial Position
November 30, 2011

Assets		
Equipment	$14,000	
Less: Accumulated depreciation—equipment	2,200	$11,800
Supplies		1,200
Accounts receivable		1,730
Cash		3,020
Total assets		$17,750
Equity and Liabilities		
Equity		
Share capital—ordinary	$10,000	
Retained earnings	4,200	$14,200
Liabilities		
Accounts payable	2,600	
Unearned service revenue	550	
Salaries payable	400	3,550
Total equity and liabilities		$17,750

BYP 3-1 FINANCIAL REPORTING PROBLEM

(a) Items that may result in adjusting entries for prepayments are:

1. **Prepaid expenses and other current assets (per statement of financial position).**

2. **Property, plant and equipment, net of depreciation (per statement of financial position).**

3. **Amortizable intangible assets, net (per statement of financial position)—amortization is similar to depreciation (explained later in Chapter 9).**

(b) Accrual adjusting entries were probably made for accounts payable and other current liabilities, interest expense, and income taxes payable.

BYP 3-2 COMPARATIVE ANALYSIS PROBLEM

		Cadbury	Nestlé
(a)	Net increase (decrease) in property, plant, and equipment (net) from 2007 to 2008.	£ (143,000,000)	CHF (968,000,000)
(b)	Increase (decrease) in selling, general, and administrative expenses from 2007 to 2008.	£ 187,000,000	CHF (680,000,000)
(c)	Increase (decrease) in long-term debt (obligations) from 2007 to 2008.	£ (657,000,000)	CHF (817,000,000)
(d)	Increase (decrease) in net income from 2007 to 2008.	£ (41,000,000)	CHF(7,669,000,000)
(e)	Increase (decrease) in cash and cash equivalents from 2007 to 2008.	£ (242,000,000)	CHF (759,000,000)

BYP 3-3 EXPLORING THE WEB

(a) The categories are:

1. The Big 4
2. Professional
3. Associations
4. Education
5. Finance
6. Professors
7. Taxation
8. Audit and Law
9. Government
10. Edgar
11. FASB
12. International
13. Publishers
14. Journals and Publications
15. Softwares
16. Other sites
17. Entertainment
18. Interest books

(b) Student answers will vary depending on the category selected.

BYP 3-4 DECISION MAKING ACROSS THE ORGANIZATION

(a)

HAPPY CAMPER PARK, INC.
Income Statement
For the Quarter Ended March 31, 2011

Revenues		
Rental revenue ($90,000 – $15,000)		$75,000
Expenses		
Wages expense [$29,800 + ($300 X 2)]	$30,400	
Advertising expense ($5,200 + $110)	5,310	
Supplies expense ($6,200 – $1,700)	4,500	
Repairs expense ($4,000 + $260)	4,260	
Insurance expense ($7,200 X 3/12)	1,800	
Utilities expense ($900 + $180)	1,080	
Depreciation expense	800	
Interest expense ($12,000 X 10% X 3/12)	300	
Total expenses		48,450
Net income		$26,550

(b) The international financial reporting standards pertaining to the income statement that were not recognized by Amaya were the revenue recognition principle and the expense recognition principle. The revenue recognition principle states that revenue is recognized when it is earned. The fees of $15,000 for summer rentals have not been earned and, therefore, should not be reported in income for the quarter ended March 31. The expense recognition principle dictates that efforts (expenses) be matched with accomplishments (revenues) whenever it is reasonable and practicable to do so. This means that the expenses should include amounts incurred in March but not paid until April. The difference in expenses was $7,750 ($48,450 – $40,700). The overstatement of revenues ($15,000) plus the understatement of expenses ($7,750) equals the difference in reported income of $22,750 ($49,300 – $26,550).

BYP 3-5 COMMUNICATION ACTIVITY

Dear President Nickels:

Upon reviewing the accounts of your company at the end of the year, I discovered that adjusting entries were not made.

Adjusting entries are made at the end of the accounting period to ensure that the revenue recognition and expense recognition principles required under international financial reporting standards are followed. The use of adjusting entries makes it possible to report on the statement of financial position the appropriate assets, liabilities, and equity at the statement date and to report on the income statement the proper net income (or loss) for the year.

Adjusting entries are needed because the trial balance may not contain an up-to-date and complete record of transactions and events for the following reasons:

1. Some events are not journalized daily because it is not efficient to do so. Examples are the use of supplies and the earning of wages by employees.

2. The expiration of some costs is not journalized during the accounting period because these costs expire with the passage of time rather than as a result of recurring daily transactions. Examples of such costs are building and equipment depreciation, rent, and insurance.

3. Some expenses, such as the cost of utility service and property taxes, may be unrecorded because the bills for the costs have not been received.

There are four types of adjusting entries:

1. Prepaid expenses—expenses paid in cash and recorded as assets before they are used or consumed.

2. Unearned revenues—revenues received in cash and recorded as liabilities before they are earned.

BYP 3-5 (Continued)

3. **Accrued revenues—revenues earned but not yet received in cash or recorded.**

4. **Accrued expenses—expenses incurred but not yet paid in cash or recorded.**

I will be happy to answer any questions you may have on adjusting entries.

Signature

BYP 3-6 ETHICS CASE

(a) The stakeholders in this situation are:

- Cathi Bell, controller.
- The president of Bluestem Company.
- Bluestem Company shareholders.

(b) 1. It is unethical for the president to place pressure on Cathi to misstate net income by requesting her to prepare incorrect adjusting entries.

2. It is customary for adjusting entries to be dated as of the statement of financial position date although the entries are prepared at a later date. Cathi did nothing unethical by dating the adjusting entries December 31.

(c) Cathi can accrue revenues and defer expenses through the preparation of adjusting entries and be ethical so long as the entries reflect economic reality. Intentionally misrepresenting the company's financial condition and its results of operations is unethical (it is also illegal).

CHAPTER 4

Completing the Accounting Cycle

ASSIGNMENT CLASSIFICATION TABLE

Study Objectives	Questions	Brief Exercises	Do It!	Exercises	A Problems	B Problems
1. Prepare a worksheet.	1, 2, 3, 4, 5	1, 2, 3	1	1, 2, 3, 5, 6, 17	1A, 2A, 3A, 4A, 5A	1B, 2B, 3B, 4B, 5B
2. Explain the process of closing the books.	6, 7, 11, 12	4, 5, 6	2	4, 7, 8, 11, 19	1A, 2A, 3A, 4A, 5A	1B, 2B, 3B, 4B, 5B
3. Describe the content and purpose of a post-closing trial balance.	8, 9	7		4, 7, 8	1A, 2A, 3A, 4A, 5A	1B, 2B, 3B, 4B, 5B
4. State the required steps in the accounting cycle.	10, 11, 12	8		10, 19	5A	5B
5. Explain the approaches to preparing correcting entries.	13	9		12, 13	6A	
6. Identify the sections of a classified statement of financial position.	14, 15, 16, 17, 18, 19	10, 11	3, 4	3, 9, 14, 15, 16, 17	1A, 2A, 3A, 4A, 5A	1B, 2B, 3B, 4B, 5B
*7. Prepare reversing entries.	10, 20, 21	12		18, 19		

*__Note:__ All **asterisked** Questions, Exercises, and Problems relate to material contained in the appendix to the chapter.

ASSIGNMENT CHARACTERISTICS TABLE

Problem Number	Description	Difficulty Level	Time Allotted (min.)
1A	Prepare worksheet, financial statements, and adjusting and closing entries.	Simple	40–50
2A	Complete worksheet; prepare financial statements, closing entries, and post-closing trial balance.	Moderate	50–60
3A	Prepare financial statements, closing entries, and post-closing trial balance.	Moderate	40–50
4A	Complete worksheet; prepare classified statement of financial position, entries, and post-closing trial balance.	Moderate	50–60
5A	Complete all steps in accounting cycle.	Complex	70–90
6A	Analyze errors and prepare correcting entries and trial balance.	Moderate	40–50
1B	Prepare worksheet, financial statements, and adjusting and closing entries.	Simple	40–50
2B	Complete worksheet; prepare financial statements, closing entries, and post-closing trial balance.	Moderate	50–60
3B	Prepare financial statements, closing entries, and post-closing trial balance.	Moderate	40–50
4B	Complete worksheet; prepare classified statement of financial position, entries, and post-closing trial balance.	Moderate	50–60
5B	Complete all steps in accounting cycle.	Complex	70–90

Comprehensive Problem: Chapters 2 to 4

WEYGANDT IFRS 1E
CHAPTER 4
COMPLETING THE ACCOUNTING CYCLE

Number	SO	BT	Difficulty	Time (min.)
BE1	1	K	Simple	2–4
BE2	1	AN	Moderate	6–8
BE3	1	C	Simple	3–5
BE4	2	AP	Simple	3–5
BE5	2	AP	Simple	4–6
BE6	2	AP	Simple	6–8
BE7	3	C	Simple	2–4
BE8	4	K	Simple	3–5
BE9	5	AN	Moderate	4–6
BE10	6	AP	Simple	4–6
BE11	6	C	Simple	3–5
BE12	7	AN	Moderate	4–6
DI1	1	C	Simple	4–6
DI2	2	AP	Simple	2–4
DI3	6	AP	Simple	6–8
DI4	6	C	Simple	4–6
EX1	1	AP	Simple	12–15
EX2	1	AP	Simple	10–12
EX3	1, 6	AP	Simple	12–15
EX4	2, 3	AP	Simple	12–15
EX5	1	AN	Simple	10–12
EX6	1	AN	Moderate	12–15
EX7	2, 3	AP	Simple	8–10
EX8	2, 3	AP	Simple	10–12
EX9	6	AP	Simple	12–15
EX10	4	C	Simple	3–5
EX11	2	AP	Simple	6–8
EX12	5	AN	Moderate	8–10
EX13	5	AN	Moderate	4–6
EX14	6	AP	Moderate	10–12
EX15	6	C	Simple	5–8
EX16	6	AP	Simple	8–10

Number	SO	BT	Difficulty	Time (min.)
EX17	1, 6	AP	Simple	12–15
EX18	7	AN	Moderate	5–7
EX19	2, 4, 7	AN	Moderate	10–12
P1A	1-3, 6	AN	Simple	40–50
P2A	1-3, 6	AP	Moderate	50–60
P3A	1-3, 6	AP	Moderate	40–50
P4A	1-3, 6	AN	Moderate	50–60
P5A	1-4, 6	AN	Complex	70–90
P6A	5	AN	Moderate	40–50
P1B	1-3, 6	AN	Simple	40–50
P2B	1-3, 6	AP	Moderate	50–60
P3B	1-3, 6	AP	Moderate	40–50
P4B	1-3, 6	AN	Moderate	50–60
P5B	1-4, 6	AN	Complex	70–90
BYP1	6	AN	Simple	10–12
BYP2	6	AN	Simple	8–10
BYP3	—	E	Simple	10–12
BYP4	6	AN	Moderate	15–20
BYP5	4	C	Simple	15–20
BYP6	—	E	Moderate	10–15

BLOOM'S TAXONOMY TABLE

Correlation Chart between Bloom's Taxonomy, Study Objectives and End-of-Chapter Exercises and Problems

Study Objective	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
1. Prepare a worksheet.	BE4-1	Q4-1 Q4-2 Q4-3 Q4-4 Q4-5 BE4-3 DI4-1	E4-1 E4-2 E4-3 E4-17 P4-2A P4-3A P4-2B P4-3B	BE4-2 E4-5 E4-6 P4-1A P4-4A P4-5A P4-1B P4-4B P4-5B		
2. Explain the process of closing the books.	Q4-6 Q4-11 Q4-12	Q4-7	BE4-4 BE4-5 BE4-6 DI4-2 E4-4 E4-7 E4-8 E4-11 P4-2A P4-3A P4-2B P4-3B	E4-19 P4-1A P4-4A P4-5A P4-1B P4-4B P4-5B		
3. Describe the content and purpose of a post-closing trial balance.		Q4-8 Q4-9 BE4-7	E4-4 E4-7 E4-8 P4-2A P4-3A P4-2B P4-3B	P4-1A P4-4A P4-5A P4-1B P4-4B P4-5B		
4. State the required steps in the accounting cycle.	Q4-11 Q4-12 BE4-8	Q4-10 E4-10		E4-19 P4-5A P4-5B		
5. Explain the approaches to preparing correcting entries.		Q4-13		BE4-9 E4-12 E4-13 P4-6A		
6. Identify the sections of a classified statement of financial position.	Q4-14 Q4-15 Q4-16	Q4-17 Q4-18 BE4-11 DI4-4 E4-15	Q4-19 BE4-10 DI4-3 E4-3 E4-9 E4-14 E4-16 E4-17 P4-2A P4-3A P4-2B P4-3B	P4-1A P4-4A P4-5A P4-1B P4-4B P4-5B		
*7. Prepare reversing entries.		Q4-10 Q4-20		Q4-21 BE4-12 E4-18 E4-19		
Broadening Your Perspective		Communication		Financial Reporting Comparative Analysis Decision Making Across the Organization		Exploring the Web Ethics Case

ANSWERS TO QUESTIONS

1. No. A worksheet is not a permanent accounting record. The use of a worksheet is an optional step in the accounting cycle.

2. The worksheet is merely a device used to make it easier to prepare adjusting entries and the financial statements.

3. The amount shown in the adjusted trial balance column for an account equals the account balance in the ledger after adjusting entries have been journalized and posted.

4. The net income of $12,000 will appear in the income statement debit column and the statement of financial position credit column. A net loss will appear in the income statement credit column and the statement of financial position debit column.

5. Formal financial statements are needed because the columnar data are not properly arranged and classified for statement purposes. For example, the Dividends account is listed with assets.

6. (1) (Dr) Individual revenue accounts and (Cr) Income Summary.
   (2) (Dr) Income Summary and (Cr) Individual expense accounts.
   (3) (Dr) Income Summary and (Cr) Retained Earnings.
   (4) (Dr) Retained Earnings and (Cr) Dividends.

7. Income Summary is a temporary account that is used in the closing process. The account is debited for expenses and credited for revenues. The difference, either net income or loss, is then closed to the Retained Earnings account.

8. The post-closing trial balance contains only statement of financial position accounts. Its purpose is to prove the equality of the permanent account balances that are carried forward into the next accounting period.

9. The accounts that will not appear in the post-closing trial balance are Depreciation Expense; Dividends; and Service Revenue.

10. A reversing entry is the exact opposite of an adjusting entry and is made at the beginning of the new accounting period. Reversing entries are an optional step in the accounting cycle.

11. The steps that involve journalizing are: (1) journalize the transactions, (2) journalize the adjusting entries, and (3) journalize the closing entries.

12. The three trial balances are the: (1) trial balance, (2) adjusted trial balance, and (3) post-closing trial balance.

13. Correcting entries differ from adjusting entries because they: (1) are not a required part of the accounting cycle, (2) may be made at any time, and (3) may affect any combination of accounts.

14. The standard classifications in a statement of financial position are:

Assets	Equity and Liabilities
Intangible Assets	Equity
Property, Plant, and Equipment	Non-current Liabilities
Long-term Investments	Current Liabilities
Current Assets	

15. A company's operating cycle is the average time required to go from cash to cash in producing revenues. The operating cycle of a company is the average time that it takes to purchase inventory, sell it on account, and then collect cash from customers.

16. Current assets are assets that a company expects to convert to cash or use up in one year. Some companies use a period longer than one year to classify assets and liabilities as current because they have an operating cycle longer than one year. Companies usually list current assets in the reverse order in which they expect to convert them into cash.

17. Long-term investments are generally investments in shares and bonds of other companies that are normally held for many years. Property, plant, and equipment are assets with relatively long useful lives that a company is currently using in operating the business.

18. The two accounts and the purpose of each are: (1) **Share capital—ordinary** is used to record investments of assets in the business by the owners (shareholders). (2) **Retained earnings** is used to record net income retained in the business.

19. Cadbury's current liabilities at December 31, 2008 and December 31, 2007 were £3,388 million and £4,614 million respectively. Cadbury's current liabilities were higher than its current assets in both years.

***20.** After reversing entries have been made, the balances will be Interest Payable, zero balance; Interest Expense, a credit balance.

***21.** (a)

Jan. 10	Salaries Expense	8,000	
	Cash		8,000

Because of the January 1 reversing entry that credited Salaries Expense for $3,500, Salaries Expense will have a debit balance of $4,500 which equals the expense for the current period.

(b)

Jan. 10	Salaries Payable	3,500	
	Salaries Expense	4,500	
	Cash		8,000

Note that Salaries Expense will again have a debit balance of $4,500.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 4-1

The steps in using a worksheet are performed in the following sequence: (1) prepare a trial balance on the worksheet, (2) enter adjustment data, (3) enter adjusted balances, (4) extend adjusted balances to appropriate statement columns and (5) total the statement columns, compute net income (loss), and complete the worksheet. Filling in the blanks, the answers are 1, 3, 4, 5, 2.

The solution to BRIEF EXERCISE 4-2 is on page 4-9.

BRIEF EXERCISE 4-3

Account	Income Statement Dr.	Income Statement Cr.	Statement of Financial Position Dr.	Statement of Financial Position Cr.
Accumulated Depreciation				X
Depreciation Expense	X			
Share Capital—Ordinary				X
Dividends			X	
Service Revenue		X		
Supplies			X	
Accounts Payable				X

BRIEF EXERCISE 4-4

Dec. 31	Service Revenue	50,000	
	Income Summary		50,000
31	Income Summary	31,000	
	Salaries Expense		27,000
	Supplies Expense		4,000
31	Income Summary	19,000	
	Retained Earnings		19,000
31	Retained Earnings	2,000	
	Dividends		2,000

BRIEF EXERCISE 4-2

LEY COMPANY
Worksheet

Account Titles	Trial Balance		Adjustments		Adjusted Trial Balance		Income Statement		Statement of Financial Position	
	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.
Prepaid Insurance	3,000			(a) 1,200	1,800				1,800	
Service Revenue		58,000		(b) 1,100		59,100		59,100		
Salaries Expense	25,000		(c) 800		25,800		25,800			
Accounts Receivable			(b) 1,100		1,100				1,100	
Salaries Payable				(c) 800		800				800
Insurance Expense			(a) 1,200		1,200		1,200			

BRIEF EXERCISE 4-5

Salaries Expense

Bal.	27,000	(2)	27,000

Income Summary

(2)	31,000	(1)	50,000
(3)	19,000		
	50,000		50,000

Service Revenue

(1)	50,000	Bal.	50,000

Supplies Expense

Bal.	4,000	(2)	4,000

Retained Earnings

(4)	2,000	Bal.	30,000
		(3)	19,000
		Bal.	47,000

Dividends

Bal.	2,000	(4)	2,000

BRIEF EXERCISE 4-6

July 31	Green Fee Revenue	13,600	
	Income Summary		13,600
31	Income Summary	10,700	
	Salaries Expense		8,200
	Maintenance Expense		2,500

Green Fee Revenue

Date	Explanation	Ref.	Debit	Credit	Balance
7/31	Balance			13,600	13,600
7/31	Closing entry		13,600		0

Salaries Expense

Date	Explanation	Ref.	Debit	Credit	Balance
7/31	Balance		8,200		8,200
7/31	Closing entry			8,200	0

BRIEF EXERCISE 4-6 (Continued)

Maintenance Expense

Date	Explanation	Ref.	Debit	Credit	Balance
7/31	Balance		2,500		2,500
7/31	Closing entry			2,500	0

BRIEF EXERCISE 4-7

The accounts that will appear in the post-closing trial balance are:

Accumulated Depreciation
Share Capital—Ordinary
Supplies
Accounts Payable

BRIEF EXERCISE 4-8

The proper sequencing of the required steps in the accounting cycle is as follows:

1. Analyze business transactions.
2. Journalize the transactions.
3. Post to ledger accounts.
4. Prepare a trial balance.
5. Journalize and post adjusting entries.
6. Prepare an adjusted trial balance.
7. Prepare financial statements.
8. Journalize and post closing entries.
9. Prepare a post-closing trial balance.

Filling in the blanks, the answers are 4, 2, 8, 7, 5, 3, 9, 6, 1.

BRIEF EXERCISE 4-9

1.	Service Revenue	780	
	Accounts Receivable		780
2.	Accounts Payable (€1,750 – €1,570)	180	
	Store Supplies		180

BRIEF EXERCISE 4-10

DIAZ COMPANY
Partial Statement of Financial Position

Current assets	
Prepaid insurance	£ 3,600
Supplies	5,200
Accounts receivable	12,500
Short-term investments	6,700
Cash	15,400
Total	£43,400

BRIEF EXERCISE 4-11

CL	Accounts payable	CL	Income tax payable
CA	Accounts receivable	LTI	Investment in long-term bonds
PPE	Accumulated depreciation	PPE	Land
PPE	Building	CA	Merchandise inventory
CA	Cash	IA	Patent
IA	Copyrights	CA	Supplies

*BRIEF EXERCISE 4-12

Nov. 1	Salaries Payable	1,400	
	Salaries Expense		1,400

The balances after posting the reversing entry are Salaries Expense (Cr.) $1,400 and Salaries Payable $0.

SOLUTIONS FOR DO IT! REVIEW EXERCISES

DO IT! 4-1

Income statement debit column—Utilities Expense
Income statement credit column—Service Revenue
Statement of financial position debit column—Accounts Receivable
Statement of financial position credit column—Notes Payable; Accumulated Depreciation; Share Capital

DO IT! 4-2

Dec. 31	Income Summary	29,000	
	Retained Earnings		29,000
Dec. 31	Retained Earnings	22,000	
	Dividends		22,000

DO IT! 4-3

ZURICH COMPANY
Partial Statement of Financial Position
December 31, 2011

Property, plant and equipment		
Equipment	CHF21,700	
Less: Accumulated depreciation	5,700	CHF16,000
Long-term investments		
Investments in ordinary shares		6,500
Current assets		
Inventories	2,900	
Accounts receivable	4,300	
Short-term investments	120	
Cash	13,400	20,720
Total assets		CHF43,220

DO IT! 4-4

NA	Interest revenue	E	Share Capital—Ordinary
CL	Utilities payable	PPE	Accumulated depreciation
CL	Accounts payable	PPE	Machinery
CA	Supplies	NA	Salaries expense
NCL	Bonds payable	LTI	Investment in real estate
IA	Trademarks	CL	Unearned rent

SOLUTIONS TO EXERCISES

EXERCISE 4-1

LIN COMPANY
Worksheet
For the Month Ended June 30, 2011

Account Titles	Trial Balance Dr.	Trial Balance Cr.	Adjustments Dr.	Adjustments Cr.	Adj. Trial Balance Dr.	Adj. Trial Balance Cr.	Income Statement Dr.	Income Statement Cr.	Statement of Financial Position Dr.	Statement of Financial Position Cr.
Cash	2,320				2,320				2,320	
Accounts Receivable	2,440				2,440				2,440	
Supplies	1,880			(a) 1,580	300				300	
Accounts Payable		1,120				1,120				1,120
Unearned Revenue		240	(b) 140			100				100
Share Capital—Ordinary		3,600				3,600				3,600
Service Revenue		2,400		(b) 140		2,540		2,540		
Salaries Expense	560		(c) 280		840		840			
Miscellaneous Expense	160				160		160			
Totals	7,360	7,360								
Supplies Expense			(a) 1,580		1,580		1,580			
Salaries Payable				(c) 280		280				280
Totals			2,000	2,000	7,640	7,640	2,580	2,540	5,060	5,100
Net Loss								40	40	
Totals							2,580	2,580	5,100	5,100

EXERCISE 4-2

GOODE COMPANY
Worksheet (partial)
For the Month Ended April 30, 2011

Account Titles	Adjusted Trial Balance Dr.	Adjusted Trial Balance Cr.	Income Statement Dr.	Income Statement Cr.	Statement of Financial Position Dr.	Statement of Financial Position Cr.
Cash	13,752				13,752	
Accounts Receivable	7,840				7,840	
Prepaid Rent	2,280				2,280	
Equipment	23,050				23,050	
Accum. Depreciation		4,921				4,921
Notes Payable		5,700				5,700
Accounts Payable		5,672				5,672
Share Capital—Ordinary		25,000				25,000
Retained Earnings		5,960				5,960
Dividends	3,650				3,650	
Service Revenue		15,590		15,590		
Salaries Expense	10,840		10,840			
Rent Expense	760		760			
Depreciation Expense	671		671			
Interest Expense	57		57			
Interest Payable		57				57
Totals	62,900	62,900	12,328	15,590	50,572	47,310
Net Income			3,262			3,262
Totals			15,590	15,590	50,572	50,572

EXERCISE 4-3

GOODE COMPANY
Income Statement
For the Month Ended April 30, 2011

Revenues		
Service revenue		€15,590
Expenses		
Salaries expense	€10,840	
Rent expense	760	
Depreciation expense	671	
Interest expense	57	
Total expenses		12,328
Net income		€ 3,262

GOODE COMPANY
Retained Earnings Statement
For the Month Ended April 30, 2011

Retained earnings, April 1	€5,960
Add: Net income	3,262
	9,222
Less: Dividends	3,650
Retained earnings, April 30	€5,572

GOODE COMPANY
Statement of Financial Position
April 30, 2011

Assets		
Property, plant, and equipment		
Equipment	€23,050	
Less: Accumulated depreciation	4,921	€18,129
Current assets		
Prepaid rent	2,280	
Accounts receivable	7,840	
Cash	13,752	23,872
Total assets		€42,001

EXERCISE 4-3 (Continued)

GOODE COMPANY
Statement of Financial Position (Continued)
April 30, 2011

Equity and Liabilities		
Equity		
Share capital—ordinary	€25,000	
Retained earnings	5,572	€30,572
Current liabilities		
Notes payable	5,700	
Accounts payable	5,672	
Interest payable	57	11,429
Total equity and liabilities		€42,001

EXERCISE 4-4

(a)

Date	Account	Debit	Credit
Apr. 30	Service Revenue	15,590	
	Income Summary		15,590
30	Income Summary	12,328	
	Salaries Expense		10,840
	Rent Expense		760
	Depreciation Expense		671
	Interest Expense		57
30	Income Summary	3,262	
	Retained Earnings		3,262
30	Retained Earnings	3,650	
	Dividends		3,650

(b)

Income Summary

(2)	12,328	(1)	15,590
(3)	3,262		
	15,590		15,590

Retained Earnings

(4)	3,650	Bal.	5,960
		(3)	3,262
		Bal.	5,572

EXERCISE 4-4 (Continued)

(c)

GOODE COMPANY
Post-Closing Trial Balance
April 30, 2011

	Debit	Credit
Cash	€13,752	
Accounts Receivable	7,840	
Prepaid Rent	2,280	
Equipment	23,050	
Accumulated Depreciation		€ 4,921
Notes Payable		5,700
Accounts Payable		5,672
Interest Payable		57
Share Capital—Ordinary		25,000
Retained Earnings		5,572
	€46,922	€46,922

EXERCISE 4-5

		Debit	Credit
(a)	Accounts Receivable	600	
	Service Revenue		600
	Insurance Expense	400	
	Prepaid Insurance		400
	Depreciation Expense	900	
	Accumulated Depreciation		900
	Salaries Expense	500	
	Salaries Payable		500

EXERCISE 4-5 (Continued)

(b)

	Income Statement		Statement of Financial Position	
	Dr.	Cr.	Dr.	Cr.
Accounts Receivable			X	
Prepaid Insurance			X	
Accum. Depreciation				X
Salaries Payable				X
Service Revenue		X		
Salaries Expense	X			
Insurance Expense	X			
Depreciation Expense	X			

EXERCISE 4-6

(a) Accounts Receivable—$25,000 ($34,000 – $9,000).
Supplies—$2,000 ($7,000 – $5,000).
Accumulated Depreciation—$22,000 ($12,000 + $10,000).
Salaries Payable—$0 No liability recorded until adjustments are made.
Insurance Expense—$6,000 ($26,000 – $20,000).
Salaries Expense—$44,000 ($49,000 – $5,000).

(b)

Accounts Receivable	9,000	
Service Revenue		9,000
Insurance Expense	6,000	
Prepaid Insurance		6,000
Supplies Expense	5,000	
Supplies		5,000
Depreciation Expense	10,000	
Accumulated Depreciation		10,000
Salaries Expense	5,000	
Salaries Payable		5,000

EXERCISE 4-7

(a)	Service Revenue	4,064	
	Income Summary		4,064
	Income Summary	3,828	
	Salaries Expense		1,344
	Miscellaneous Expense		256
	Supplies Expense		2,228
	Income Summary	236	
	Retained Earnings		236
	Retained Earnings	300	
	Dividends		300

(b)

RIO DE JANEIRO COMPANY
Post-Closing Trial Balance
June 30, 2011

Account Titles	Debit	Credit
Cash	R$3,712	
Accounts Receivable	3,904	
Supplies	480	
Accounts Payable		R$1,792
Salaries Payable		448
Unearned Revenue		160
Share Capital—Ordinary		5,000
Retained Earnings (R$760 + R$236 – R$300)		696
	R$8,096	R$8,096

EXERCISE 4-8

(a)

General Journal					J15
Date		**Account Titles**	**Ref.**	**Debit**	**Credit**
July	31	Commission Revenue............................	404	65,000	
		Rent Revenue	429	6,500	
		Income Summary...........................	350		71,500
	31	Income Summary......................................	350	74,600	
		Salaries Expense	720		55,700
		Utilities Expense	732		14,900
		Depreciation Expense	711		4,000
	31	Retained Earnings....................................	320	3,100	
		Income Summary...........................	350		3,100
	31	Retained Earnings....................................	320	16,000	
		Dividends..	332		16,000

(b)

Retained Earnings						No. 320
Date		**Explanation**	**Ref.**	**Debit**	**Credit**	**Balance**
July	31	Balance				25,200
	31	Close net loss	J15	3,100		22,100
	31	Close dividends	J15	16,000		6,100

Income Summary						No. 350
Date		**Explanation**	**Ref.**	**Debit**	**Credit**	**Balance**
July	31	Close revenue	J15		71,500	71,500
	31	Close expenses	J15	74,600		(3,100)
	31	Close net loss	J15		3,100	0

EXERCISE 4-8 (Continued)

(c)

APACHI COMPANY
Post-Closing Trial Balance
July 31, 2011

	Debit	Credit
Cash	$14,840	
Accounts Receivable	8,780	
Equipment	15,900	
Accumulated Depreciation		$ 7,400
Accounts Payable		4,220
Unearned Rent Revenue		1,800
Share Capital—Ordinary		20,000
Retained Earnings		6,100
	$39,520	$39,520

EXERCISE 4-9

(a)

APACHI COMPANY
Income Statement
For the Year Ended July 31, 2011

Revenues		
Commission revenue	$65,000	
Rent revenue	6,500	
Total revenues		$71,500
Expenses		
Salaries expense	55,700	
Utilities expense	14,900	
Depreciation expense	4,000	
Total expenses		74,600
Net loss		($ 3,100)

APACHI COMPANY
Retained Earnings Statement
For the Year Ended July 31, 2011

Retained earnings, August 1, 2010		$25,200
Less: Net loss	$ 3,100	
Dividends	16,000	19,100
Retained earnings, July 31, 2011		$ 6,100

(b)

APACHI COMPANY
Statement of Financial Position
July 31, 2011

Assets		
Property, plant, and equipment		
Equipment	$15,900	
Less: Accumulated depreciation	7,400	$ 8,500
Current assets		
Accounts receivable	8,780	
Cash	14,840	23,620
Total assets		$32,120
Equity and Liabilities		
Equity		
Share capital—ordinary	$20,000	
Retained earnings	6,100	$26,100
Current liabilities		
Accounts payable	4,220	
Unearned rent revenue	1,800	6,020
Total equity and liabilities		$32,120

EXERCISE 4-10

1. False *"Analyze business transactions"* is the first step in the accounting cycle.
2. False. Reversing entries are an *optional* step in the accounting cycle.
3. True.
4. True.
5. True.
6. False. Steps 1–3 may occur daily in the accounting cycle. Steps 4–7 are performed on a periodic basis. Steps 8 and 9 are usually prepared only at the end of a company's annual accounting period.
7. False. The step of *"journalize the transactions"* occurs before the step of *"post to the ledger accounts."*
8. False. Closing entries are prepared *after* financial statements are prepared.

EXERCISE 4-11

(a)

June 30	Service Revenue	15,100	
	Income Summary		15,100
30	Income Summary	13,100	
	Salaries Expense		8,800
	Supplies Expense		1,300
	Rent Expense		3,000
30	Income Summary	2,000	
	Retained Earnings		2,000
30	Retained Earnings	2,500	
	Dividends		2,500

(b)

Income Summary

June 30	13,100	June 30	15,100
June 30	2,000		
	15,100		15,100

EXERCISE 4-12

			Debit	Credit
(a)	1.	Cash	600	
		Equipment		600
		Salaries Expense	600	
		Cash		600
	2.	Service Revenue	100	
		Cash		100
		Cash	1,000	
		Accounts Receivable		1,000
	3.	Accounts Payable	890	
		Equipment		890
		Equipment	980	
		Accounts Payable		980
(b)	1.	Salaries Expense	600	
		Equipment		600
	2.	Service Revenue	100	
		Cash	900	
		Accounts Receivable		1,000
	3.	Equipment	90	
		Accounts Payable		90

EXERCISE 4-13

1.	Accounts Payable (R$630 – R$360)	270	
	Cash		270
2.	Supplies	560	
	Equipment		56
	Accounts Payable		504
3.	Dividends	400	
	Salaries Expense		400

EXERCISE 4-14

(a)

KARR BOWLING ALLEY
Statement of Financial Position
December 31, 2011

Assets			
Property, plant, and equipment			
Land		$64,000	
Building	$128,800		
Less: Acc. depr.—building	42,600	86,200	
Equipment	62,400		
Less: Acc. depr.—equipment	18,720	43,680	$193,880
Current assets			
Prepaid insurance		4,680	
Accounts receivable		14,520	
Cash		18,040	37,240
Total assets			$231,120

EXERCISE 4-14 (Continued)

KARR BOWLING ALLEY
Statement of Financial Position (Continued)
December 31, 2011

Equity and Liabilities		
Equity		
Share capital—ordinary	$100,000	
Retained earnings ($15,000 + $3,440*)	18,440	$118,440
Non-current liabilities		
Note payable		83,880
Current liabilities		
Current portion of note payable	13,900	
Accounts payable	12,300	
Interest payable	2,600	28,800
Total equity and liabilities		$231,120

*Net income = $14,180 – $780 – $7,360 – $2,600 = $3,440

(b) Current assets exceed current liabilities by $8,440 ($37,240 – $28,800). In addition, approximately 50% of current assets are in the form of cash. In sum, the company's liquidity appears to be reasonably good.

EXERCISE 4-15

CL	Accounts payable	CA	Inventories
CA	Accounts receivable	LTI	Investments
PPE	Accumulated depreciation	PPE	Land
PPE	Buildings	NCL	Long-term debt
CA	Cash	CA	Supplies
E	Share capital—ordinary	PPE	Office equipment
IA	Patents	CA	Prepaid expenses
CL	Salaries payable		

EXERCISE 4-16

R. STEVENS COMPANY
Statement of Financial Position
December 31, 2011
(in thousands)

Assets		
Property, plant, and equipment		
Equipment	£11,500	
Less: Accumulated depreciation	(5,655)	£ 5,845
Long-term investments		264
Current assets		
Prepaid expenses	880	
Inventories	1,256	
Accounts receivable	1,696	
Short-term investments	3,690	
Cash	2,668	10,190
Total assets		£16,299
Equity and Liabilities		
Equity		
Share capital—ordinary	£10,000	
Retained earnings	3,063	£13,063
Non-current liabilities		
Long-term debt	943	
Notes payable (after 2012)	368	1,311
Current liabilities		
Notes payable in 2012	481	
Accounts payable	1,444	1,925
Total equity and liabilities		£16,299

EXERCISE 4-17

(a)

B. SNYDER COMPANY, INC.
Income Statement
For the Year Ended July 31, 2011

Revenues		
Commission revenue	$61,100	
Rent revenue	8,500	
Total revenues		$69,600
Expenses		
Salaries expense..	51,700	
Utilities expense...	22,600	
Depreciation expense................................	4,000	
Total expense.......................................		78,300
Net loss		$ (8,700)

B. SNYDER COMPANY, INC.
Retained Earnings Statement
For the Year Ended July 31, 2011

Retained earnings, August 1, 2010..................		$21,200
Less: Net loss	$8,700	
Dividends	4,000	12,700
Retained earnings, July 31, 2011......................		$ 8,500

(b)

B. SNYDER COMPANY, INC.
Statement of Financial Position
July 31, 2011

Assets		
Property, plant, and equipment		
Equipment	$18,500	
Less: Accumulated depreciation	6,000	$12,500
Current assets		
Accounts receivable	9,780	
Cash	24,200	33,980
Total assets		$46,480
Equity and Liabilities		
Equity		
Share capital—ordinary	$30,000	
Retained earnings	8,500	$38,500
Non-current liabilities		
Note payable		1,800
Current liabilities		
Accounts payable	4,100	
Salaries payable	2,080	6,180
Total equity and liabilities		$46,480

*EXERCISE 4-18

(a)	Dec. 31	Salaries Expense (R$10,000 X 2/5)..........	4,000	
		Salaries Payable..................................		4,000
	Jan. 6	Salaries Payable..	4,000	
		Salaries Expense (R$10,000 X 3/5)..........	6,000	
		Cash..		10,000
(b)	Dec. 31	Salaries Expense..	4,000	
		Salaries Payable..................................		4,000
	Jan. 1	Salaries Payable..	4,000	
		Salaries Expense.................................		4,000
	Jan. 6	Salaries Expense..	10,000	
		Cash..		10,000

*EXERCISE 4-19

(a)	Dec. 31	Commission Revenue	92,000	
		Income Summary		92,000
	31	Income Summary	7,800	
		Interest Expense..................................		7,800
(b)	Jan. 1	Commission Revenue	4,500	
		Accounts Receivable		4,500
	1	Interest Payable..	1,500	
		Interest Expense..................................		1,500

*EXERCISE 4-19 (Continued)

(c) & (e)

Accounts Receivable

Dec. 31	Balance	*19,500			
31	Adjusting	4,500			
		24,000			
			Jan. 1	Reversing	4,500

*($24,000 – $4,500)

Commission Revenue

Dec. 31	Closing	92,000	Dec. 31	Balance	87,500*
			31	Adjusting	4,500
		92,000			92,000
Jan. 1	Reversing	4,500	Jan. 10		4,500

*($92,000 – $4,500)

Interest Payable

			Dec. 31	Adjusting	1,500
Jan. 1	Reversing	1,500			

Interest Expense

Dec. 31	Balance	*6,300	Dec. 31	Closing	7,800
31	Adjusting	1,500			
		7,800			7,800
Jan. 15		2,500	Jan. 1	Reversing	1,500

*($7,800 – $1,500)

(d)

		(1)		
Jan. 10	Cash		4,500	
	Commission Revenue			4,500
		(2)		
15	Interest Expense		2,500	
	Cash			2,500

SOLUTIONS TO PROBLEMS

PROBLEM 4-1A

(a)

THOMAS MAGNUM, P.I., INC.
Worksheet
For the Quarter Ended March 31, 2011

Account Titles	Trial Balance Dr.	Trial Balance Cr.	Adjustments Dr.	Adjustments Cr.	Adjusted Trial Balance Dr.	Adjusted Trial Balance Cr.	Income Statement Dr.	Income Statement Cr.	Statement of Financial Position Dr.	Statement of Financial Position Cr.
Cash	11,400				11,400				11,400	
Accounts Receivable	5,620		(e) 530		6,150				6,150	
Supplies	1,050			(a) 670	380				380	
Prepaid Insurance	2,400			(d) 600	1,800				1,800	
Equipment	30,000				30,000				30,000	
Notes Payable		10,000				10,000				10,000
Accounts Payable		12,350				12,350				12,350
Share Capital—Ordinary		20,000				20,000				20,000
Dividends	600				600				600	
Service Revenue		13,620		(e) 530		14,150		14,150		
Salaries Expense	2,200				2,200		2,200			
Travel Expense	1,300				1,300		1,300			
Rent Expense	1,200				1,200		1,200			
Miscellaneous Expense	200				200		200			
Totals	55,970	55,970								
Supplies Expense			(a) 670		670		670			
Depreciation Expense			(b) 1,000		1,000		1,000			
Accumulated Depreciation				(b) 1,000		1,000				1,000
Interest Expense			(c) 300		300		300			
Interest Payable				(c) 300		300				300
Insurance Expense			(d) 600		600		600			
Totals			3,100	3,100	57,800	57,800	7,470	14,150	50,330	43,650
Net Income							6,680			6,680
Totals							14,150	14,150	50,330	50,330

Key: (a) Supplies Used; (b) Depreciation Expensed; (c) Accrued Interest on note; (d) Insurance Expired; (e) Service Revenue Earned but unbilled.

PROBLEM 4-1A (Continued)

(b)

THOMAS MAGNUM, P.I., INC.
Income Statement
For the Quarter Ended March 31, 2011

Revenues		
Service revenue		€14,150
Expenses		
Salaries expense	€2,200	
Travel expense	1,300	
Rent expense	1,200	
Depreciation expense	1,000	
Supplies expense	670	
Insurance expense	600	
Interest expense	300	
Miscellaneous expense	200	
Total expenses		7,470
Net income		€ 6,680

THOMAS MAGNUM, P.I., INC.
Retained Earnings Statement
For the Quarter Ended March 31, 2011

Retained earnings, January 1	€ 0
Add: Net income	6,680
	6,680
Less: Dividends	600
Retained earnings, March 31	€6,080

THOMAS MAGNUM, P.I., INC.
Statement of Financial Position
March 31, 2011

Assets		
Property, plant, and equipment		
Equipment	€30,000	
Less: Accumulated depreciation	1,000	€29,000
Current assets		
Prepaid insurance	1,800	
Supplies	380	
Accounts receivable	6,150	
Cash	11,400	19,730
Total assets		€48,730
Equity and Liabilities		
Equity		
Share capital—ordinary	€20,000	
Retained earnings	6,080	€26,080
Current liabilities		
Notes payable	10,000	
Accounts payable	12,350	
Interest payable	300	22,650
Total equity and liabilities		€48,730

(c)

Mar. 31	Supplies Expense	670	
	Supplies		670
31	Depreciation Expense	1,000	
	Accumulated Depreciation		1,000
31	Interest Expense	300	
	Interest Payable		300
31	Insurance Expense	600	
	Prepaid Insurance		600

PROBLEM 4-1A (Continued)

	Mar. 31	Accounts Receivable	530	
		Service Revenue		530
(d)	Mar. 31	Service Revenue	14,150	
		Income Summary		14,150
	31	Income Summary	7,470	
		Travel Expense		1,300
		Salaries Expense		2,200
		Rent Expense		1,200
		Insurance Expense		600
		Depreciation Expense		1,000
		Supplies Expense		670
		Interest Expense		300
		Miscellaneous Expense		200
	31	Income Summary	6,680	
		Retained Earnings		6,680
	31	Retained Earnings	600	
		Dividends		600

PROBLEM 4-2A

(a)

PORTER COMPANY
Partial Worksheet
For the Year Ended December 31, 2011

Account No.	Titles	Adjusted Trial Balance Dr.	Adjusted Trial Balance Cr.	Income Statement Dr.	Income Statement Cr.	Statement of Financial Position Dr.	Statement of Financial Position Cr.
101	Cash	18,800				18,800	
112	Accounts Receivable	16,200				16,200	
126	Supplies	2,300				2,300	
130	Prepaid Insurance	4,400				4,400	
151	Office Equipment	44,000				44,000	
152	Acc. Depr.—Off. Equip.		20,000				20,000
200	Notes Payable		20,000				20,000
201	Accounts Payable		8,000				8,000
212	Salaries Payable		2,600				2,600
230	Interest Payable		1,000				1,000
311	Share Capital—Ordinary		30,000				30,000
320	Retained Earnings		6,000				6,000
332	Dividends	12,000				12,000	
400	Service Revenue		77,800		77,800		
610	Advertising Expense	12,000		12,000			
631	Supplies Expense	3,700		3,700			
711	Depreciation Expense	8,000		8,000			
722	Insurance Expense	4,000		4,000			
726	Salaries Expense	39,000		39,000			
905	Interest Expense	1,000		1,000			
	Totals	165,400	165,400	67,700	77,800	97,700	87,600
	Net Income			10,100			10,100
	Totals			77,800	77,800	97,700	97,700

(b)

PORTER COMPANY
Income Statement
For the Year Ended December 31, 2011

Revenues		
Service revenue		$77,800
Expenses		
Salaries expense	$39,000	
Advertising expense	12,000	
Depreciation expense	8,000	
Insurance expense	4,000	
Supplies expense	3,700	
Interest expense	1,000	
Total expenses		67,700
Net income		$10,100

PORTER COMPANY
Retained Earnings Statement
For the Year Ended December 31, 2011

Retained earnings, January 1	$ 6,000
Add: Net income	10,100
	16,100
Less: Dividends	12,000
Retained earnings, December 31	$ 4,100

PORTER COMPANY
Statement of Financial Position
December 31, 2011

Assets		
Property, plant, and equipment		
Office equipment	$44,000	
Less: Accumulated depreciation	20,000	$24,000
Current assets		
Prepaid insurance	4,400	
Supplies	2,300	
Accounts receivable	16,200	
Cash	18,800	41,700
Total assets		$65,700
Equity and Liabilities		
Equity		
Share capital—ordinary	$30,000	
Retained earnings	4,100	$34,100
Non-current liabilities		
Notes payable		10,000
Current liabilities		
Notes payable	10,000	
Accounts payable	8,000	
Salaries payable	2,600	
Interest payable	1,000	21,600
Total equity and liabilities		$65,700

PROBLEM 4-2A (Continued)

(c)

General Journal J14

Date		Account Titles and Explanation	Ref.	Debit	Credit
Dec.	31	Service Revenue	400	77,800	
		Income Summary	350		77,800
	31	Income Summary	350	67,700	
		Advertising Expense	610		12,000
		Supplies Expense	631		3,700
		Depreciation Expense	711		8,000
		Insurance Expense	722		4,000
		Salaries Expense	726		39,000
		Interest Expense	905		1,000
	31	Income Summary	350	10,100	
		Retained Earnings	320		10,100
	31	Retained Earnings	320	12,000	
		Dividends	332		12,000

(d)

Retained Earnings No. 320

Date		Explanation	Ref.	Debit	Credit	Balance
Jan.	31	Balance	✓		6,000	6,000
Dec.	31	Closing entry	J14		10,100	16,100
	31	Closing entry	J14	12,000		4,100

Dividends No. 332

Date		Explanation	Ref.	Debit	Credit	Balance
Dec.	31	Balance	✓	12,000		12,000
	31	Closing entry	J14		12,000	0

PROBLEM 4-2A (Continued)

Income Summary **No. 350**

Date		Explanation	Ref.	Debit	Credit	Balance
Dec.	31	Closing entry	J14		77,800	77,800
	31	Closing entry	J14	67,700		10,100
	31	Closing entry	J14	10,100		0

Service Revenue **No. 400**

Date		Explanation	Ref.	Debit	Credit	Balance
Dec.	31	Balance	✓		77,800	77,800
	31	Closing entry	J14	77,800		0

Advertising Expense **No. 610**

Date		Explanation	Ref.	Debit	Credit	Balance
Dec.	31	Balance	✓	12,000		12,000
	31	Closing entry	J14		12,000	0

Supplies Expense **No. 631**

Date		Explanation	Ref.	Debit	Credit	Balance
Dec.	31	Balance	✓	3,700		3,700
	31	Closing entry	J14		3,700	0

Depreciation Expense **No. 711**

Date		Explanation	Ref.	Debit	Credit	Balance
Dec.	31	Balance	✓	8,000		8,000
	31	Closing entry	J14		8,000	0

Insurance Expense **No. 722**

Date		Explanation	Ref.	Debit	Credit	Balance
Dec.	31	Balance	✓	4,000		4,000
	31	Closing entry	J14		4,000	0

Salaries Expense — No. 726

Date		Explanation	Ref.	Debit	Credit	Balance
Dec.	31	Balance	✓	39,000		39,000
	31	Closing entry	J14		39,000	0

Interest Expense — No. 905

Date		Explanation	Ref.	Debit	Credit	Balance
Dec.	31	Balance	✓	1,000		1,000
	31	Closing entry	J14		1,000	0

(e)

PORTER COMPANY
Post-Closing Trial Balance
December 31, 2011

	Debit	Credit
Cash	$18,800	
Accounts Receivable	16,200	
Supplies	2,300	
Prepaid Insurance	4,400	
Office Equipment	44,000	
Accumulated Depreciation—Office Equipment		$20,000
Notes Payable		20,000
Accounts Payable		8,000
Salaries Payable		2,600
Interest Payable		1,000
Share Capital—Ordinary		30,000
Retained Earnings		4,100
	$85,700	$85,700

PROBLEM 4-3A

(a)

WOODS COMPANY, INC.
Income Statement
For the Year Ended December 31, 2011

Revenues		
Service revenue		$44,000
Expenses		
Salaries expense	$35,200	
Repair expense	5,400	
Utilities expense	4,000	
Depreciation expense	2,800	
Insurance expense	1,200	
Total expenses		48,600
Net loss		$ (4,600)

WOODS COMPANY
Retained Earnings Statement
For the Year Ended December 31, 2011

Retained earnings, January 1		$14,000
Less: Net loss	$4,600	
Dividends	7,200	11,800
Retained earnings, December 31		$ 2,200

WOODS COMPANY, INC.
Statement of Financial Position
December 31, 2011

Assets		
Property, plant, and equipment		
Equipment	$28,000	
Less: Accumulated depreciation	8,600	$19,400
Current assets		
Prepaid insurance	1,800	
Accounts receivable	7,500	
Cash	8,200	17,500
Total assets		$36,900

WOODS COMPANY, INC.
Statement of Financial Position (Continued)
December 31, 2011

Equity and Liabilities

Equity		
Share capital—ordinary	$20,000	
Retained earnings	2,200	$22,200
Current liabilities		
Accounts payable	11,700	
Salaries payable	3,000	14,700
Total equity and liabilities		$36,900

(b)

General Journal

Date		Account Titles	Ref.	Debit	Credit
Dec.	31	Service Revenue	400	44,000	
		Income Summary	350		44,000
	31	Income Summary	350	48,600	
		Repair Expense	622		5,400
		Depreciation Expense	711		2,800
		Insurance Expense	722		1,200
		Salaries Expense	726		35,200
		Utilities Expense	732		4,000
	31	Retained Earnings	320	4,600	
		Income Summary	350		4,600
	31	Retained Earnings	320	7,200	
		Dividends	332		7,200

(c)

Retained Earnings No. 320

12/31	4,600	12/31 Bal.	14,000
12/31	7,200		
		12/31 Bal.	2,200

Dividends No. 332

12/31 Bal.	7,200	12/31	7,200

Income Summary No. 350

12/31	48,600	12/31	44,000
		12/31	4,600
	48,600		48,600

Service Revenue No. 400

12/31	44,000	12/31 Bal.	44,000

Repair Expense No. 622

12/31 Bal.	5,400	12/31	5,400

Depreciation Expense No. 711

12/31 Bal.	2,800	12/31	2,800

Insurance Expense No. 722

12/31 Bal.	1,200	12/31	1,200

Salaries Expense No. 726

12/31 Bal.	35,200	12/31	35,200

Utilities Expense No. 732

12/31 Bal.	4,000	12/31	4,000

(d)

WOODS COMPANY, INC.
Post-Closing Trial Balance
December 31, 2011

	Debit	Credit
Cash	$ 8,200	
Accounts Receivable	7,500	
Prepaid Insurance	1,800	
Equipment	28,000	
Accumulated Depreciation		$ 8,600
Accounts Payable		11,700
Salaries Payable		3,000
Share Capital—Ordinary		20,000
Retained Earnings		2,200
Totals	$45,500	$45,500

PROBLEM 4-4A

(a)

SALVADOR AMUSEMENT PARK, INC.
Worksheet
For the Year Ended September 30, 2011

Account Titles	Trial Balance		Adjustments		Adjusted Trial Balance		Income Statement		Statement of Financial Position	
	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.
Cash	41,400				41,400				41,400	
Supplies	18,600			(a) 17,400	1,200				1,200	
Prepaid Insurance	31,900			(b) 23,000	8,900				8,900	
Land	80,000				80,000				80,000	
Equipment	120,000				120,000				120,000	
Accumulated Depreciation		36,200		(c) 6,000		42,200				42,200
Accounts Payable		14,600				14,600				14,600
Unearned Admissions Revenue		3,700	(d) 1,700			2,000				2,000
Mortgage Note Payable		50,000				50,000				50,000
Share Capital—Ordinary		100,000				100,000				100,000
Retained Earnings		9,700				9,700				9,700
Dividends	14,000				14,000				14,000	
Admissions Revenue		277,500		(d) 1,700		279,200		279,200		
Salaries Expense	105,000				105,000		105,000			
Repair Expense	30,500				30,500		30,500			
Advertising Expense	9,400				9,400		9,400			
Utilities Expense	16,900				16,900		16,900			
Property Taxes Expense	18,000		(e) 3,000		21,000		21,000			
Interest Expense	6,000		(f) 4,000		10,000		10,000			
Totals	491,700	491,700								
Insurance Expense			(b) 23,000		23,000		23,000			
Supplies Expense			(a) 17,400		17,400		17,400			
Interest Payable				(f) 4,000		4,000				4,000
Depreciation Expense			(c) 6,000		6,000		6,000			
Property Taxes Payable				(e) 3,000		3,000				3,000
Totals			55,100	55,100	504,700	504,700	239,200	279,200	265,500	225,500
Net Income							40,000			40,000
Totals							279,200	279,200	265,500	265,500

Key: (a) Supplies Used; (b) Expired Insurance; (c) Depreciation Expensed; (d) Admissions Revenue Earned; (e) Accrued Property Taxes; (f) Accrued Interest Payable.

(b)

SALVADOR AMUSEMENT PARK, INC.
Statement of Financial Position
September 30, 2011

Assets			
Property, plant, and equipment			
Land		R$ 80,000	
Equipment	R$120,000		
Less: Accum. depreciation	42,200	77,800	R$157,800
Current assets			
Prepaid insurance		8,900	
Supplies		1,200	
Cash		41,400	51,500
Total assets			R$209,300
Equity and Liabilities			
Equity			
Share capital—ordinary		R$100,000	
Retained earnings		35,700*	R$135,700
Non-current liabilities			
Mortgage note payable			40,000
Current liabilities			
Current maturity of mortgage note payable		10,000	
Accounts payable		14,600	
Interest payable		4,000	
Property taxes payable		3,000	
Unearned admissions revenue		2,000	33,600
Total equity and liabilities			R$209,300

*R$9,700 + R$40,000 – R$14,000

PROBLEM 4-4A (Continued)

(c)	Sept. 30	Supplies Expense	17,400	
		Supplies		17,400
	30	Insurance Expense	23,000	
		Prepaid Insurance		23,000
	30	Depreciation Expense	6,000	
		Accumulated Depreciation		6,000
	30	Unearned Admissions Revenue	1,700	
		Admissions Revenue		1,700
	30	Property Taxes Expense	3,000	
		Property Taxes Payable		3,000
	30	Interest Expense	4,000	
		Interest Payable		4,000

(d)	Sept. 30	Admissions Revenue	279,200	
		Income Summary		279,200
	30	Income Summary	239,200	
		Salaries Expense		105,000
		Repair Expense		30,500
		Insurance Expense		23,000
		Property Taxes Expense		21,000
		Supplies Expense		17,400
		Utilities Expense		16,900
		Interest Expense		10,000
		Advertising Expense		9,400
		Depreciation Expense		6,000
	30	Income Summary	40,000	
		Retained Earnings		40,000
	30	Retained Earnings	14,000	
		Dividends		14,000

(e)

SALVADOR AMUSEMENT PARK, INC.
Post-Closing Trial Balance
September 30, 2011

	Debit	Credit
Cash	R$ 41,400	
Supplies	1,200	
Prepaid Insurance	8,900	
Land	80,000	
Equipment	120,000	
Accumulated Depreciation		R$ 42,200
Accounts Payable		14,600
Interest Payable		4,000
Property Taxes Payable		3,000
Unearned Admissions Revenue		2,000
Mortgage Note Payable		50,000
Share Capital—Ordinary		100,000
Retained Earnings		35,700
	R$251,500	R$251,500

PROBLEM 4-5A

(a)

		General Journal			J1
Date		**Account Titles and Explanation**	**Ref.**	**Debit**	**Credit**
Mar.	1	Cash	101	10,000	
		Share Capital—Ordinary	311		10,000
	1	Equipment	157	6,000	
		Cash	101		3,000
		Accounts Payable	201		3,000
	3	Cleaning Supplies	128	1,200	
		Accounts Payable	201		1,200
	5	Prepaid Insurance	130	1,200	
		Cash	101		1,200
	14	Accounts Receivable	112	4,800	
		Service Revenue	400		4,800
	18	Accounts Payable	201	2,000	
		Cash	101		2,000
	20	Salaries Expense	726	1,800	
		Cash	101		1,800
	21	Cash	101	1,400	
		Accounts Receivable	112		1,400
	28	Accounts Receivable	112	2,500	
		Service Revenue	400		2,500
	31	Gas & Oil Expense	633	200	
		Cash	101		200
	31	Dividends	332	700	
		Cash	101		700

PROBLEM 4-5A (Continued)

(b)&(c)

EDDY'S CARPET CLEANERS
Worksheet
For the Month Ended March 31, 2011

Account Titles	Trial Balance Dr.	Trial Balance Cr.	Adjustments Dr.	Adjustments Cr.	Adjusted Trial Balance Dr.	Adjusted Trial Balance Cr.	Income Statement Dr.	Income Statement Cr.	Statement of Financial Position Dr.	Statement of Financial Position Cr.
Cash	2,500				2,500				2,500	
Accounts Receivable	5,900		(a) 700		6,600				6,600	
Cleaning Supplies	1,200			(d) 800	400				400	
Prepaid Insurance	1,200			(c) 100	1,100				1,100	
Equipment	6,000				6,000				6,000	
Accounts Payable		2,200				2,200				2,200
Share Capital—Ordinary		10,000				10,000				10,000
Dividends	700				700				700	
Service Revenue		7,300		(a) 700		8,000		8,000		
Gas & Oil Expense	200				200		200			
Salaries Expense	1,800		(e) 500		2,300		2,300			
Totals	19,500	19,500								
Depreciation Expense			(b) 250		250		250			
Accum. Depr.—Equipment				(b) 250		250				250
Insurance Expense			(c) 100		100		100			
Cleaning Supplies Expense			(d) 800		800		800			
Salaries Payable				(e) 500		500				500
Totals			2,350	2,350	20,950	20,950	3,650	8,000	17,300	12,950
Net Income							4,350			4,350
Totals							8,000	8,000	17,300	17,300

Key: (a) Service Revenue Earned; (b) Depreciation Expensed; (c) Insurance Expired; (d) Cleaning Supplies Used; (e) Unpaid Salaries.

PROBLEM 4-5A (Continued)

(a), (e) & (f)

Cash — No. 101

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 1		J1	10,000		10,000
1		J1		3,000	7,000
5		J1		1,200	5,800
18		J1		2,000	3,800
20		J1		1,800	2,000
21		J1	1,400		3,400
31		J1		200	3,200
31		J1		700	2,500

Accounts Receivable — No. 112

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 14		J1	4,800		4,800
21		J1		1,400	3,400
28		J1	2,500		5,900
31	Adjusting	J2	700		6,600

Cleaning Supplies — No. 128

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 3		J1	1,200		1,200
31	Adjusting	J2		800	400

Prepaid Insurance — No. 130

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 5		J1	1,200		1,200
31	Adjusting	J2		100	1,100

Equipment — No. 157

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 1		J1	6,000		6,000

PROBLEM 4-5A (Continued)

Accumulated Depreciation—Equipment — No. 158

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 31	Adjusting	J2		250	250

Accounts Payable — No. 201

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 1		J1		3,000	3,000
3		J1		1,200	4,200
18		J1	2,000		2,200

Salaries Payable — No. 212

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 31	Adjusting	J2		500	500

Share Capital—Ordinary — No. 311

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 1		J1		10,000	10,000

Retained Earnings — No. 320

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 1					0
31	Closing	J3		4,350	4,350
31	Closing	J3	700		3,650

Dividends — No. 332

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 31		J1	700		700
31	Closing	J3		700	0

Income Summary — No. 350

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 31	Closing	J3		8,000	8,000
31	Closing	J3	3,650		4,350
31	Closing	J3	4,350		0

PROBLEM 4-5A (Continued)

Service Revenue — **No. 400**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 14		J1		4,800	4,800
28		J1		2,500	7,300
31	Adjusting	J2		700	8,000
31	Closing	J3	8,000		0

Gas & Oil Expense — **No. 633**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 31		J1	200		200
31	Closing	J3		200	0

Cleaning Supplies Expense — **No. 634**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 31	Adjusting	J2	800		800
31	Closing	J3		800	0

Depreciation Expense — **No. 711**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 31	Adjusting	J2	250		250
31	Closing	J3		250	0

Insurance Expense — **No. 722**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 31	Adjusting	J2	100		100
31	Closing	J3		100	0

Salaries Expense — **No. 726**

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 20		J1	1,800		1,800
31	Adjusting	J2	500		2,300
31	Closing	J3		2,300	0

(d)

EDDY'S CARPET CLEANERS
Income Statement
For the Month Ended March 31, 2011

Revenues		
Service revenue		$8,000
Expenses		
Salaries expense	$2,300	
Cleaning supplies expense	800	
Depreciation expense	250	
Gas & oil expense	200	
Insurance expense	100	
Total expenses		3,650
Net income		$4,350

EDDY'S CARPET CLEANERS
Retained Earnings Statement
For the Month Ended March 31, 2011

Retained earnings, March 1	$ 0
Add: Net income	4,350
	4,350
Less: Dividends	700
Retained earnings, March 31	$3,650

EDDY'S CARPET CLEANERS
Statement of Financial Position
March 31, 2011

Assets

Property, plant, and equipment		
Equipment	$ 6,000	
Less: Accumulated depreciation	250	$ 5,750

EDDY'S CARPET CLEANERS
Statement of Financial Position (Continued)
March 31, 2011

Assets (Continued)		
Current assets		
Prepaid insurance	1,100	
Cleaning supplies	400	
Accounts receivable	6,600	
Cash	2,500	10,600
Total assets		$16,350
Equity and Liabilities		
Equity		
Share capital—ordinary	$10,000	
Retained earnings	3,650	$13,650
Current liabilities		
Accounts payable	2,200	
Salaries payable	500	2,700
Total equity and liabilities		$16,350

(e)

General Journal **J2**

Date	Account Titles and Explanation	Ref.	Debit	Credit
Mar. 31	Accounts Receivable	112	700	
	Service Revenue	400		700
31	Depreciation Expense	711	250	
	Accumulated Depreciation—Equipment	158		250
31	Insurance Expense	722	100	
	Prepaid Insurance	130		100
31	Cleaning Supplies Expense	634	800	
	Cleaning Supplies	128		800
31	Salaries Expense	726	500	
	Salaries Payable	212		500

(f)

General Journal J3

Date	Account Titles and Explanation	Ref.	Debit	Credit
Mar. 31	Service Revenue	400	8,000	
	Income Summary	350		8,000
31	Income Summary	350	3,650	
	Salaries Expense	726		2,300
	Depreciation Expense	711		250
	Insurance Expense	722		100
	Cleaning Supplies Expense	634		800
	Gas & Oil Expense	633		200
31	Income Summary	350	4,350	
	Retained Earnings	320		4,350
31	Retained Earnings	320	700	
	Dividends	332		700

(g)

EDDY'S CARPET CLEANERS
Post-Closing Trial Balance
March 31, 2011

	Debit	Credit
Cash	$ 2,500	
Accounts Receivable	6,600	
Cleaning Supplies	400	
Prepaid Insurance	1,100	
Equipment	6,000	
Accumulated Depreciation—Equipment		$ 250
Accounts Payable		2,200
Salaries Payable		500
Share Capital—Ordinary		10,000
Retained Earnings		3,650
	$16,600	$16,600

PROBLEM 4-6A

(a)

	(1) INCORRECT ENTRY			(2) CORRECT ENTRY			(3) CORRECTING ENTRY		
1.	Cash	960		Cash	690		Accounts Receivable	270	
	Accts. Receivable		960	Accts. Receivable		690	Cash		270
2.	Misc. Expense	65		Advertising Expense	65		Advertising Expense	65	
	Cash		65	Cash		65	Misc. Expense		65
3.	Salaries Expense	1,900		Salaries Expense	1,200		Salaries Payable	700	
	Cash		1,900	Salaries Payable	700		Salaries Expense		700
				Cash		1,900			
4.	Supplies	290		Equipment	290		Equipment	290	
	Accounts Payable		290	Accounts Payable		290	Supplies		290
5.	Equipment	59		Repair Expense	95		Repair Expense	95	
	Cash		59	Cash		95	Cash		36
							Equipment		59

(b)

CLARK CABLE, INC.
Trial Balance
April 30, 2011

	Debit	Credit
Cash (£4,100 – £270 – £36)	£ 3,794	
Accounts Receivable (£3,200 + £270)	3,470	
Supplies (£800 – £290)	510	
Equipment (£10,600 + £290 – £59)	10,831	
Accumulated Depreciation		£ 1,350
Accounts Payable		2,100
Salaries Payable (£700 – £700)		0
Unearned Revenue		890
Share Capital—Ordinary		10,000
Retained Earnings		2,900
Service Revenue		5,450
Salaries Expense (£3,300 – £700)	2,600	
Advertising Expense (£600 + £65)	665	
Miscellaneous Expense (£290 – £65)	225	
Depreciation Expense	500	
Repair Expense	95	
	£22,690	£22,690

PROBLEM 4-1B

(a)

SASSE ROOFING, INC.
Worksheet
For the Month Ended March 31, 2011

Account Titles	Trial Balance Dr.	Trial Balance Cr.	Adjustments Dr.	Adjustments Cr.	Adjusted Trial Balance Dr.	Adjusted Trial Balance Cr.	Income Statement Dr.	Income Statement Cr.	Statement of Financial Position Dr.	Statement of Financial Position Cr.
Cash	4,500				4,500				4,500	
Accounts Receivable	3,200				3,200				3,200	
Roofing Supplies	2,000			(a) 1,350	650				650	
Equipment	11,000				11,000				11,000	
Accumulated Depreciation		1,250		(b) 250		1,500				1,500
Accounts Payable		2,500				2,500				2,500
Unearned Revenue		550	(c) 380			170				170
Share Capital—Ordinary		12,900				12,900				12,900
Dividends	1,100				1,100				1,100	
Service Revenue		6,300		(c) 380		6,680		6,680		
Salaries Expense	1,300		(d) 600		1,900		1,900			
Miscellaneous Expense	400				400		400			
Totals	23,500	23,500								
Supplies Expense			(a) 1,350		1,350		1,350			
Depreciation Expense			(b) 250		250		250			
Salaries Payable				(d) 600		600				600
Totals			2,580	2,580	24,350	24,350	3,900	6,680	20,450	17,670
Net Income							2,780			2,780
Totals							6,680	6,680	20,450	20,450

Key: (a) Supplies Used; (b) Depreciation Expensed; (c) Service Revenue Earned; (d) Salaries Accrued.

PROBLEM 4-1B (Continued)

(b)

SASSE ROOFING INC.
Income Statement
For the Month Ended March 31, 2011

Revenues		
Service revenue		$6,680
Expenses		
Salaries expense	$1,900	
Supplies expense	1,350	
Miscellaneous expense	400	
Depreciation expense	250	
Total expenses		3,900
Net income		$2,780

SASSE ROOFING INC.
Retained Earnings Statement
For the Month Ended March 31, 2011

Retained earnings, March 1	$ 0
Add: Net income	2,780
	2,780
Less: Dividends	1,100
Retained earnings, March 31	$1,680

SASSE ROOFING INC.
Statement of Financial Position
March 31, 2011

Assets		
Property, plant, and equipment		
Equipment	$11,000	
Less: Accum. depreciation—equipment	1,500	$ 9,500
Current assets		
Roofing supplies	650	
Accounts receivable	3,200	
Cash	4,500	8,350
Total assets		$17,850

PROBLEM 4-1B (Continued)

SASSE ROOFING INC.
Statement of Financial Position (Continued)
March 31, 2011

Equity and Liabilities

Equity		
Share capital—ordinary	$12,900	
Retained earnings	1,680	$14,580
Current liabilities		
Accounts payable	2,500	
Salaries payable	600	
Unearned revenue	170	3,270
Total equity and liabilities		$17,850

(c)	Mar. 31	Supplies Expense	1,350	
		Roofing Supplies		1,350
	31	Depreciation Expense	250	
		Accumulated Depreciation		250
	31	Unearned Revenue	380	
		Service Revenue		380
	31	Salaries Expense	600	
		Salaries Payable		600
(d)	Mar. 31	Service Revenue	6,680	
		Income Summary		6,680
	31	Income Summary	3,900	
		Salaries Expense		1,900
		Supplies Expense		1,350
		Depreciation Expense		250
		Miscellaneous Expense		400
	31	Income Summary	2,780	
		Retained Earnings		2,780
	31	Retained Earnings	1,100	
		Dividends		1,100

PROBLEM 4-2B

(a)

RACHEL COMPANY INC.
Partial Worksheet
For the Year Ended December 31, 2011

Account		Adjusted Trial Balance		Income Statement		Statement of Financial Position	
No.	Titles	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.
101	Cash	8,100				8,100	
112	Accounts Receivable	10,800				10,800	
126	Supplies	1,500				1,500	
130	Prepaid Insurance	2,000				2,000	
151	Office Equipment	24,000				24,000	
152	Acc. Depr.—Off. Equip.		5,600				5,600
200	Notes Payable		15,000				15,000
201	Accounts Payable		6,100				6,100
212	Salaries Payable		2,400				2,400
230	Interest Payable		600				600
311	Share Capital—Ordinary		10,000				10,000
320	Retained Earnings		5,800				5,800
332	Dividends	7,000				7,000	
400	Service Revenue		61,000		61,000		
610	Advertising Expense	8,400		8,400			
631	Supplies Expense	4,000		4,000			
711	Depreciation Expense	5,600		5,600			
722	Insurance Expense	3,500		3,500			
726	Salaries Expense	31,000		31,000			
905	Interest Expense	600		600			
	Totals	106,500	106,500	53,100	61,000	53,400	45,500
	Net Income			7,900			7,900
	Totals			61,000	61,000	53,400	53,400

PROBLEM 4-2B (Continued)

(b)

RACHEL COMPANY INC.
Income Statement
For the Year Ended December 31, 2011

Revenues		
Service revenue		£61,000
Expenses		
Salaries expense	£31,000	
Advertising expense	8,400	
Depreciation expense	5,600	
Supplies expense	4,000	
Insurance expense	3,500	
Interest expense	600	
Total expenses		53,100
Net income		£ 7,900

RACHEL COMPANY INC.
Retained Earnings Statement
For the Year Ended December 31, 2011

Retained earnings, January 1	£ 5,800
Add: Net income	7,900
	13,700
Less: Dividends	7,000
Retained earnings, December 31	£ 6,700

RACHEL COMPANY INC.
Statement of Financial Position
December 31, 2011

Assets		
Property, plant, and equipment		
Office equipment	£24,000	
Less: Accumulated depreciation	5,600	£18,400
Current assets		
Prepaid insurance	2,000	
Supplies	1,500	
Accounts receivable	10,800	
Cash	8,100	22,400
Total assets		£40,800
Equity and Liabilities		
Equity		
Share capital—ordinary	£10,000	
Retained earnings	6,700	£16,700
Non-current liabilities		
Notes payable		6,000
Current liabilities		
Notes payable	9,000	
Accounts payable	6,100	
Salaries payable	2,400	
Interest payable	600	18,100
Total equity and liabilities		£40,800

PROBLEM 4-2B (Continued)

(c)

General Journal — J14

Date		Account Titles and Explanation	Ref.	Debit	Credit
Dec.	31	Service Revenue	400	61,000	
		Income Summary	350		61,000
	31	Income Summary	350	53,100	
		Advertising Expense	610		8,400
		Supplies Expense	631		4,000
		Depreciation Expense	711		5,600
		Insurance Expense	722		3,500
		Salaries Expense	726		31,000
		Interest Expense	905		600
	31	Income Summary	350	7,900	
		Retained Earnings	320		7,900
	31	Retained Earnings	320	7,000	
		Dividends	332		7,000

(d)

Retained Earnings — No. 320

Date		Explanation	Ref.	Debit	Credit	Balance
Jan.	1	Balance	✓		5,800	5,800
Dec.	31	Closing entry	J14		7,900	13,700
	31	Closing entry	J14	7,000		6,700

Dividends — No. 332

Date		Explanation	Ref.	Debit	Credit	Balance
Dec.	31	Balance	✓	7,000		7,000
	31	Closing entry	J14		7,000	0

PROBLEM 4-2B (Continued)

Income Summary **No. 350**

Date		Explanation	Ref.	Debit	Credit	Balance
Dec.	31	Closing entry	J14		61,000	61,000
	31	Closing entry	J14	53,100		7,900
	31	Closing entry	J14	7,900		0

Service Revenue **No. 400**

Date		Explanation	Ref.	Debit	Credit	Balance
Dec.	31	Balance	✓		61,000	61,000
	31	Closing entry	J14	61,000		0

Advertising Expense **No. 610**

Date		Explanation	Ref.	Debit	Credit	Balance
Dec.	31	Balance	✓	8,400		8,400
	31	Closing entry	J14		8,400	0

Supplies Expense **No. 631**

Date		Explanation	Ref.	Debit	Credit	Balance
Dec.	31	Balance	✓	4,000		4,000
	31	Closing entry	J14		4,000	0

Depreciation Expense **No. 711**

Date		Explanation	Ref.	Debit	Credit	Balance
Dec.	31	Balance	✓	5,600		5,600
	31	Closing entry	J14		5,600	0

Insurance Expense **No. 722**

Date		Explanation	Ref.	Debit	Credit	Balance
Dec.	31	Balance	✓	3,500		3,500
	31	Closing entry	J14		3,500	0

PROBLEM 4-2B (Continued)

Salaries Expense						No. 726
Date		Explanation	Ref.	Debit	Credit	Balance
Dec.	31	Balance	✓	31,000		31,000
	31	Closing entry	J14		31,000	0

Interest Expense						No. 905
Date		Explanation	Ref.	Debit	Credit	Balance
Dec.	31	Balance	✓	600		600
	31	Closing entry	J14		600	0

(e)

RACHEL COMPANY INC.
Post-Closing Trial Balance
December 31, 2011

	Debit	Credit
Cash	£ 8,100	
Accounts Receivable	10,800	
Supplies	1,500	
Prepaid Insurance	2,000	
Office Equipment	24,000	
Accumulated Depreciation—Office Equipment		£ 5,600
Notes Payable		15,000
Accounts Payable		6,100
Salaries Payable		2,400
Interest Payable		600
Share Capital—Ordinary		10,000
Retained Earnings		6,700
Totals	£46,400	£46,400

PROBLEM 4-3B

(a)

MUDDY COMPANY
Income Statement
For the Year Ended December 31, 2011

Revenues		
Service revenue		$56,000
Expenses		
Salaries expense	$30,000	
Depreciation expense	2,100	
Insurance expense	1,800	
Repair expense	1,600	
Utilities expense	1,400	
Total expenses		36,900
Net income		$19,100

MUDDY COMPANY
Retained Earnings Statement
For the Year Ended December 31, 2011

Retained earnings, January 1	$ 8,500
Add: Net income	19,100
	27,600
Less: Dividends	11,000
Retained earnings, December 31	$16,600

MUDDY COMPANY
Statement of Financial Position
December 31, 2011

Assets

Property, plant, and equipment		
Equipment	$21,000	
Less: Accumulated depreciation	4,500	$16,500
Current assets		
Prepaid insurance	2,800	
Accounts receivable	10,800	
Cash	17,900	31,500
Total assets		$48,000

MUDDY COMPANY
Statement of Financial Position (Continued)
December 31, 2011

Equity and Liabilities		
Equity		
Share capital—ordinary	$20,000	
Retained earnings	16,600	$36,600
Current liabilities		
Accounts payable	9,000	
Salaries payable	2,400	11,400
Total equity and liabilities		$48,000

(b)

General Journal

Date	Account Titles and Explanation	Ref.	Debit	Credit
Dec. 31	Service Revenue	400	56,000	
	Income Summary	350		56,000
31	Income Summary	350	36,900	
	Repair Expense	622		1,600
	Depreciation Expense	711		2,100
	Insurance Expense	722		1,800
	Salaries Expense	726		30,000
	Utilities Expense	732		1,400
31	Income Summary	350	19,100	
	Retained Earnings	320		19,100
31	Retained Earnings	320	11,000	
	Dividends	332		11,000

PROBLEM 4-3B (Continued)

(c)

Retained Earnings — No. 320

12/31	11,000	1/1 Bal.	8,500
		12/31	19,100
		12/31 Bal.	16,600

Dividends — No. 332

12/31 Bal.	11,000	12/31	11,000

Income Summary — No. 350

12/31	36,900	12/31	56,000
12/31	19,100		
	56,000		56,000

Service Revenue — No. 400

12/31	56,000	12/31 Bal.	56,000

Repair Expense — No. 622

12/31 Bal.	1,600	12/31	1,600

Depreciation Expense — No. 711

12/31 Bal.	2,100	12/31	2,100

Insurance Expense — No. 722

12/31 Bal.	1,800	12/31	1,800

Salaries Expense — No. 726

12/31 Bal.	30,000	12/31	30,000

Utilities Expense — No. 732

12/31 Bal.	1,400	12/31	1,400

(d)

MUDDY COMPANY
Post-Closing Trial Balance
December 31, 2011

	Debit	Credit
Cash	$17,900	
Accounts Receivable	10,800	
Prepaid Insurance	2,800	
Equipment	21,000	
Accumulated Depreciation		$ 4,500
Accounts Payable		9,000
Salaries Payable		2,400
Share Capital—Ordinary		20,000
Retained Earnings		16,600
Totals	$52,500	$52,500

PROBLEM 4-4B

(a)

ROCKFORD MANAGEMENT SERVICES, INC.
Worksheet
For the Year Ended December 31, 2011

Account Titles	Trial Balance Dr.	Trial Balance Cr.	Adjustments Dr.	Adjustments Cr.	Adjusted Trial Balance Dr.	Adjusted Trial Balance Cr.	Income Statement Dr.	Income Statement Cr.	Statement of Financial Position Dr.	Statement of Financial Position Cr.
Cash	13,800				13,800				13,800	
Accounts Receivable	28,300				28,300				28,300	
Prepaid Insurance	3,600			(a) 1,200	2,400				2,400	
Land	67,000				67,000				67,000	
Building	127,000				127,000				127,000	
Equipment	59,000				59,000				59,000	
Accounts Payable		12,500				12,500				12,500
Unearned Rent Revenue		6,000	(d) 4,000			2,000				2,000
Mortgage Note Payable		120,000				120,000				120,000
Share Capital—Ordinary		100,000				100,000				100,000
Retained Earnings		44,000				44,000				44,000
Dividends	22,000				22,000				22,000	
Service Revenue		90,700				90,700		90,700		
Rent Revenue		29,000		(d) 4,000		33,000		33,000		
Salaries Expense	42,000				42,000		42,000			
Advertising Expense	20,500				20,500		20,500			
Utilities Expense	19,000				19,000		19,000			
Totals	402,200	402,200								
Insurance Expense			(a) 1,200		1,200		1,200			
Depr. Expense—Building			(b) 3,000		3,000		3,000			
Accum. Depr.—Building				(b) 3,000		3,000				3,000
Depr. Expense—Equipment			(c) 4,700		4,700		4,700			
Accum. Depr.—Equipment				(c) 4,700		4,700				4,700
Interest Expense			(e) 11,000		11,000		11,000			
Interest Payable				(e) 11,000		11,000				11,000
Totals			23,900	23,900	420,900	420,900	101,400	123,700	319,500	297,200
Net Income							22,300			22,300
Totals							123,700	123,700	319,500	319,500

Key: (a) Expired Insurance; (b) Depreciation Expense—Building; (c) Depreciation Expense—Equipment; (d) Rent Revenue Earned; (e) Accrued Interest Payable.

PROBLEM 4-4B (Continued)

(b)

ROCKFORD MANAGEMENT SERVICES INC.
Statement of Financial Position
December 31, 2011

Assets

Property, plant, and equipment			
Land		£ 67,000	
Building	£127,000		
Less: Accumulated depreciation—building	3,000	124,000	
Equipment	59,000		
Less: Accumulated depreciation—equipment	4,700	54,300	£245,300
Current assets			
Prepaid insurance		2,400	
Accounts receivable		28,300	
Cash		13,800	44,500
Total assets			£289,800

Equity and Liabilities

Equity		
Share capital—ordinary	£100,000	
Retained earnings	44,300*	£144,300
Non-current liabilities		
Mortgage note payable		100,000
Current liabilities		
Current maturity of mortgage note payable	20,000	
Accounts payable	12,500	
Interest payable	11,000	
Unearned rent revenue	2,000	45,500
Total equity and liabilities		£289,800

*£44,000 + £22,300 – £22,000

PROBLEM 4-4B (Continued)

(c)	Dec. 31	Insurance Expense	1,200	
		Prepaid Insurance		1,200
	31	Depreciation Expense—Building	3,000	
		Accumulated Depreciation—Building		3,000
	31	Depreciation Expense—Equipment	4,700	
		Accumulated Depreciation—Equipment		4,700
	31	Unearned Rent Revenue	4,000	
		Rent Revenue		4,000
	31	Interest Expense	11,000	
		Interest Payable		11,000
(d)	Dec. 31	Service Revenue	90,700	
		Rent Revenue	33,000	
		Income Summary		123,700
	31	Income Summary	101,400	
		Salaries Expense		42,000
		Advertising Expense		20,500
		Interest Expense		11,000
		Utilities Expense		19,000
		Depreciation Expense—Equipment		4,700
		Depreciation Expense—Building		3,000
		Insurance Expense		1,200
	31	Income Summary	22,300	
		Retained Earnings		22,300
	31	Retained Earnings	22,000	
		Dividends		22,000

PROBLEM 4-4B (Continued)

(e)

ROCKFORD MANAGEMENT SERVICES INC.
Post-Closing Trial Balance
December 31, 2011

	Debit	Credit
Cash	£ 13,800	
Accounts Receivable	28,300	
Prepaid Insurance	2,400	
Land	67,000	
Building	127,000	
Accumulated Depreciation—Building		£ 3,000
Equipment	59,000	
Accumulated Depreciation—Equipment		4,700
Accounts Payable		12,500
Interest Payable		11,000
Unearned Rent Revenue		2,000
Mortgage Note Payable		120,000
Share Capital—Ordinary		100,000
Retained Earnings		44,300
	£297,500	£297,500

PROBLEM 4-5B

(a)

General Journal J1

Date		Account Titles and Explanation	Ref.	Debit	Credit
July	1	Cash	101	20,000	
		Share Capital—Ordinary	311		20,000
	1	Equipment	157	9,000	
		Cash	101		4,000
		Accounts Payable	201		5,000
	3	Cleaning Supplies	128	2,100	
		Accounts Payable	201		2,100
	5	Prepaid Insurance	130	1,800	
		Cash	101		1,800
	12	Accounts Receivable	112	4,500	
		Service Revenue	400		4,500
	18	Accounts Payable	201	2,900	
		Cash	101		2,900
	20	Salaries Expense	726	2,000	
		Cash	101		2,000
	21	Cash	101	3,400	
		Accounts Receivable	112		3,400
	25	Accounts Receivable	112	9,000	
		Service Revenue	400		9,000
	31	Gas & Oil Expense	633	350	
		Cash	101		350
	31	Dividends	332	1,600	
		Cash	101		1,600

PROBLEM 4-5B (Continued)

(b) & (c)

CHANG'S CLEANING SERVICES INC.
Worksheet
For the Month Ended July 31, 2011

Account Titles	Trial Balance Dr.	Trial Balance Cr.	Adjustments Dr.	Adjustments Cr.	Adjusted Trial Balance Dr.	Adjusted Trial Balance Cr.	Income Statement Dr.	Income Statement Cr.	Statement of Financial Position Dr.	Statement of Financial Position Cr.
Cash	10,750				10,750				10,750	
Accounts Receivable	10,100		(a) 2,700		12,800				12,800	
Cleaning Supplies	2,100			(d) 1,400	700				700	
Prepaid Insurance	1,800			(c) 150	1,650				1,650	
Equipment	9,000				9,000				9,000	
Accounts Payable		4,200				4,200				4,200
Share Capital—Ordinary		20,000				20,000				20,000
Dividends	1,600				1,600				1,600	
Service Revenue		13,500		(a) 2,700		16,200		16,200		
Gas & Oil Expense	350				350		350			
Salaries Expense	2,000		(e) 1,000		3,000		3,000			
Totals	37,700	37,700								
Depreciation Expense			(b) 500		500		500			
Accum. Depr.—Equipment				(b) 500		500				500
Insurance Expense			(c) 150		150		150			
Cleaning Supplies Expense			(d) 1,400		1,400		1,400			
Salaries Payable				(e) 1,000		1,000				1,000
Totals			5,750	5,750	41,900	41,900	5,400	16,200	36,500	25,700
Net Income							10,800			10,800
Totals							16,200	16,200	36,500	36,500

Key: (a) Service Revenue Earned; (b) Depreciation Expense; (c) Insurance Expired; (d) Cleaning Supplies Used; (e) Unpaid Salaries.

PROBLEM 4-5B (Continued)

(a), (e) & (f)

Cash — No. 101

Date	Explanation	Ref.	Debit	Credit	Balance
July 1		J1	20,000		20,000
1		J1		4,000	16,000
5		J1		1,800	14,200
18		J1		2,900	11,300
20		J1		2,000	9,300
21		J1	3,400		12,700
31		J1		350	12,350
31		J1		1,600	10,750

Accounts Receivable — No. 112

Date	Explanation	Ref.	Debit	Credit	Balance
July 12		J1	4,500		4,500
21		J1		3,400	1,100
25		J1	9,000		10,100
31	Adjusting	J2	2,700		12,800

Cleaning Supplies — No. 128

Date	Explanation	Ref.	Debit	Credit	Balance
July 3		J1	2,100		2,100
31	Adjusting	J2		1,400	700

Prepaid Insurance — No. 130

Date	Explanation	Ref.	Debit	Credit	Balance
July 5		J1	1,800		1,800
31	Adjusting	J2		150	1,650

Equipment — No. 157

Date	Explanation	Ref.	Debit	Credit	Balance
July 1		J1	9,000		9,000

PROBLEM 4-5B (Continued)

Accumulated Depreciation—Equipment — No. 158

Date	Explanation	Ref.	Debit	Credit	Balance
July 31	Adjusting	J2		500	500

Accounts Payable — No. 201

Date	Explanation	Ref.	Debit	Credit	Balance
July 1		J1		5,000	5,000
3		J1		2,100	7,100
18		J1	2,900		4,200

Salaries Payable — No. 212

Date	Explanation	Ref.	Debit	Credit	Balance
July 31	Adjusting	J2		1,000	1,000

Share Capital—Ordinary — No. 311

Date	Explanation	Ref.	Debit	Credit	Balance
July 1		J1		20,000	20,000

Retained Earnings — No. 320

Date	Explanation	Ref.	Debit	Credit	Balance
July 1					
31	Closing	J3		10,800	10,800
31	Closing	J3	1,600		9,200

Dividends — No. 332

Date	Explanation	Ref.	Debit	Credit	Balance
July 31		J1	1,600		1,600
31	Closing	J3		1,600	0

Income Summary — No. 350

Date	Explanation	Ref.	Debit	Credit	Balance
July 31	Closing	J3		16,200	16,200
31	Closing	J3	5,400		10,800
31	Closing	J3	10,800		0

PROBLEM 4-5B (Continued)

Service Revenue — No. 400

Date	Explanation	Ref.	Debit	Credit	Balance
July 12		J1		4,500	4,500
25		J1		9,000	13,500
31	Adjusting	J2		2,700	16,200
31	Closing	J3	16,200		0

Gas & Oil Expense — No. 633

Date	Explanation	Ref.	Debit	Credit	Balance
July 31		J1	350		350
31	Closing	J3		350	0

Cleaning Supplies Expense — No. 634

Date	Explanation	Ref.	Debit	Credit	Balance
July 31	Adjusting	J2	1,400		1,400
31	Closing	J3		1,400	0

Depreciation Expense — No. 711

Date	Explanation	Ref.	Debit	Credit	Balance
July 31	Adjusting	J2	500		500
31	Closing	J3		500	0

Insurance Expense — No. 722

Date	Explanation	Ref.	Debit	Credit	Balance
July 31	Adjusting	J2	150		150
31	Closing	J3		150	0

Salaries Expense — No. 726

Date	Explanation	Ref.	Debit	Credit	Balance
July 20		J1	2,000		2,000
31	Adjusting	J2	1,000		3,000
31	Closing	J3		3,000	0

PROBLEM 4-5B (Continued)

(d)

CHANG'S CLEANING SERVICE INC.
Income Statement
For the Month Ended July 31, 2011

Revenues		
Service revenue		$16,200
Expenses		
Salaries expense	$3,000	
Cleaning supplies expense	1,400	
Depreciation expense	500	
Gas & oil expense	350	
Insurance expense	150	
Total expenses		5,400
Net income		$10,800

CHANG'S CLEANING SERVICE INC.
Retained Earnings Statement
For the Month Ended July 31, 2011

Retained earnings, July 1	$ 0
Add: Net income	10,800
	10,800
Less: Dividends	1,600
Retained earnings, July 31	$ 9,200

CHANG'S CLEANING SERVICE INC.
Statement of Financial Position
July 31, 2011

Assets

Property, plant, and equipment		
Equipment	$ 9,000	
Less: Accumulated depreciation	500	$ 8,500

CHANG'S CLEANING SERVICE INC.
Statement of Financial Position (Continued)
July 31, 2011

Assets (Continued)		
Current assets		
Prepaid insurance	1,650	
Cleaning supplies	700	
Accounts receivable	12,800	
Cash	10,750	25,900
Total assets		$34,400
Equity and Liabilities		
Equity		
Share capital—ordinary	$20,000	
Retained earnings	9,200	$29,200
Current liabilities		
Accounts payable	4,200	
Salaries payable	1,000	5,200
Total equity and liabilities		$34,400

(e)

General Journal J2

Date	Account Titles and Explanation	Ref.	Debit	Credit
July 31	Accounts Receivable	112	2,700	
	Service Revenue	400		2,700
31	Depreciation Expense	711	500	
	Accumulated Depreciation—Equipment	158		500
31	Insurance Expense	722	150	
	Prepaid Insurance	130		150
31	Cleaning Supplies Expense	634	1,400	
	Cleaning Supplies	128		1,400
31	Salaries Expense	726	1,000	
	Salaries Payable	212		1,000

PROBLEM 4-5B (Continued)

(f)

General Journal — J3

Date	Account Titles and Explanation	Ref.	Debit	Credit
July 31	Service Revenue	400	16,200	
	Income Summary	350		16,200
31	Income Summary	350	5,400	
	Salaries Expense	726		3,000
	Depreciation Expense	711		500
	Insurance Expense	722		150
	Cleaning Supplies Expense	634		1,400
	Gas & Oil Expense	633		350
31	Income Summary	350	10,800	
	Retained Earnings	320		10,800
31	Retained Earnings	320	1,600	
	Dividends	332		1,600

(g)

CHANG'S CLEANING SERVICE INC.
Post-Closing Trial Balance
July 31, 2011

	Debit	Credit
Cash	$10,750	
Accounts Receivable	12,800	
Cleaning Supplies	700	
Prepaid Insurance	1,650	
Equipment	9,000	
Accumulated Depreciation—Equipment		$ 500
Accounts Payable		4,200
Salaries Payable		1,000
Share Capital—Ordinary		20,000
Retained Earnings		9,200
	$34,900	$34,900

COMPREHENSIVE PROBLEM: CHAPTERS 2 TO 4

(a)

General Journal J1

Date		Account Titles and Explanation	Ref.	Debit	Credit
July	1	Cash	101	14,000	
		Share Capital—Ordinary	311		14,000
	1	Equipment	157	10,000	
		Cash	101		3,000
		Accounts Payable	201		7,000
	3	Cleaning Supplies	128	800	
		Accounts Payable	201		800
	5	Prepaid Insurance	130	1,800	
		Cash	101		1,800
	12	Accounts Receivable	112	3,800	
		Service Revenue	400		3,800
	18	Accounts Payable	201	1,400	
		Cash	101		1,400
	20	Salaries Expense	726	1,600	
		Cash	101		1,600
	21	Cash	101	1,400	
		Accounts Receivable	112		1,400
	25	Accounts Receivable	112	1,500	
		Service Revenue	400		1,500
	31	Gas & Oil Expense	633	400	
		Cash	101		400
	31	Dividends	332	600	
		Cash	101		600

(b) & (c)

JULIE'S MAIDS CLEANING SERVICE INC.
Worksheet
For the Month Ended July 31, 2011

Account Titles	Trial Balance Dr.	Trial Balance Cr.	Adjustments Dr.	Adjustments Cr.	Adjusted Trial Balance Dr.	Adjusted Trial Balance Cr.	Income Statement Dr.	Income Statement Cr.	Statement of Financial Position Dr.	Statement of Financial Position Cr.
Cash	6,600				6,600				6,600	
Accounts Receivable	3,900		(a) 1,300		5,200				5,200	
Cleaning Supplies	800			(d) 700	100				100	
Prepaid Insurance	1,800			(c) 150	1,650				1,650	
Equipment	10,000				10,000				10,000	
Accounts Payable		6,400				6,400				6,400
Share Capital—Ordinary		14,000				14,000				14,000
Dividends	600				600				600	
Service Revenue		5,300		(a) 1,300		6,600		6,600		
Gas & Oil Expense	400				400		400			
Salaries Expense	1,600		(e) 500		2,100		2,100			
Total	25,700	25,700								
Depreciation Expense			(b) 200		200		200			
Accum. Depr.—Equipment				(b) 200		200				200
Insurance Expense			(c) 150		150		150			
Cleaning Supplies Expense			(d) 700		700		700			
Salaries Payable				(e) 500		500				500
Totals			2,850	2,850	27,700	27,700	3,550	6,600	24,150	21,100
Net Income							3,050			3,050
Totals							6,600	6,600	24,150	24,150

Key: (a) Service Revenue; (b) Depreciation Expense; (c) Insurance Expired; (d) Cleaning Supplies Used; (e) Unpaid Salaries.

COMPREHENSIVE PROBLEM (Continued)

(a), (e) & (f)

Cash — No. 101

Date	Explanation	Ref.	Debit	Credit	Balance
July 1		J1	14,000		14,000
1		J1		3,000	11,000
5		J1		1,800	9,200
18		J1		1,400	7,800
20		J1		1,600	6,200
21		J1	1,400		7,600
31		J1		400	7,200
31		J1		600	6,600

Accounts Receivable — No. 112

Date	Explanation	Ref.	Debit	Credit	Balance
July 12		J1	3,800		3,800
21		J1		1,400	2,400
25		J1	1,500		3,900
31	Adjusting	J2	1,300		5,200

Cleaning Supplies — No. 128

Date	Explanation	Ref.	Debit	Credit	Balance
July 3		J1	800		800
31	Adjusting	J2		700	100

Prepaid Insurance — No. 130

Date	Explanation	Ref.	Debit	Credit	Balance
July 5		J1	1,800		1,800
31	Adjusting	J2		150	1,650

Equipment — No. 157

Date	Explanation	Ref.	Debit	Credit	Balance
July 1		J1	10,000		10,000

Accumulated Depreciation—Equipment **No. 158**

Date	Explanation	Ref.	Debit	Credit	Balance
July 31	Adjusting	J2		200	200

Accounts Payable **No. 201**

Date	Explanation	Ref.	Debit	Credit	Balance
July 1		J1		7,000	7,000
3		J1		800	7,800
18		J1	1,400		6,400

Salaries Payable **No. 212**

Date	Explanation	Ref.	Debit	Credit	Balance
July 31	Adjusting	J2		500	500

Share Capital—Ordinary **No. 311**

Date	Explanation	Ref.	Debit	Credit	Balance
July 1		J1		14,000	14,000

Retained Earnings **No. 320**

Date	Explanation	Ref.	Debit	Credit	Balance
July 31	Closing	J3		3,050	3,050
31	Closing	J3	600		2,450

Dividends **No. 332**

Date	Explanation	Ref.	Debit	Credit	Balance
July 31		J1	600		600
31	Closing	J3		600	0

Income Summary **No. 350**

Date	Explanation	Ref.	Debit	Credit	Balance
July 31	Closing	J3		6,600	6,600
31	Closing	J3	3,550		3,050
31	Closing	J3	3,050		0

COMPREHENSIVE PROBLEM (Continued)

Service Revenue — No. 400

Date	Explanation	Ref.	Debit	Credit	Balance
July 12		J1		3,800	3,800
25		J1		1,500	5,300
31	Adjusting	J2		1,300	6,600
31	Closing	J3	6,600		0

Gas & Oil Expense — No. 633

Date	Explanation	Ref.	Debit	Credit	Balance
July 31		J1	400		400
31	Closing	J3		400	0

Cleaning Supplies Expense — No. 634

Date	Explanation	Ref.	Debit	Credit	Balance
July 31	Adjusting	J2	700		700
31	Closing	J3		700	0

Depreciation Expense — No. 711

Date	Explanation	Ref.	Debit	Credit	Balance
July 31	Adjusting	J2	200		200
31	Closing	J3		200	0

Insurance Expense — No. 722

Date	Explanation	Ref.	Debit	Credit	Balance
July 31	Adjusting	J2	150		150
31	Closing	J3		150	0

Salaries Expense — No. 726

Date	Explanation	Ref.	Debit	Credit	Balance
July 20		J1	1,600		1,600
31	Adjusting	J2	500		2,100
31	Closing	J3		2,100	0

(d)

JULIE'S MAIDS CLEANING SERVICE INC.
Income Statement
For the Month Ended July 31, 2011

Revenues		
Service revenue		$6,600
Expenses		
Salaries expense	$2,100	
Cleaning supplies expense	700	
Gas & oil expense	400	
Depreciation expense	200	
Insurance expense	150	
Total expenses		3,550
Net income		$3,050

JULIE'S MAIDS CLEANING SERVICE INC.
Retained Earnings Statement
For the Month Ended July 31, 2011

Retained earnings, July 1	$ 0
Add: Net income	3,050
	3,050
Less: Dividends	600
Retained earnings, July 31	$2,450

JULIE'S MAIDS CLEANING SERVICE INC.
Statement of Financial Position
July 31, 2011

Assets		
Property, plant, and equipment		
Equipment	$10,000	
Less: Accumulated depreciation	200	$ 9,800
Current assets		
Prepaid insurance	1,650	
Cleaning supplies	100	
Accounts receivable	5,200	
Cash	6,600	13,550
Total assets		$23,350
Equity and Liabilities		
Equity		
Share capital—ordinary	$14,000	
Retained earnings	2,450	$16,450
Current liabilities		
Accounts payable	6,400	
Salaries payable	500	6,900
Total equity and liabilities		$23,350

(e)

General Journal J2

Date	Account Titles and Explanation	Ref.	Debit	Credit
July 31	Accounts Receivable	112	1,300	
	Service Revenue	400		1,300
31	Depreciation Expense	711	200	
	Accumulated Depreciation—Equipment	158		200
31	Insurance Expense	722	150	
	Prepaid Insurance	130		150
31	Cleaning Supplies Expense	634	700	
	Cleaning Supplies	128		700
31	Salaries Expense	726	500	
	Salaries Payable	212		500

(f)

General Journal J3

Date	Account Titles and Explanation	Ref.	Debit	Credit
July 31	Service Revenue	400	6,600	
	Income Summary	350		6,600
31	Income Summary	350	3,550	
	Salaries Expense	726		2,100
	Depreciation Expense	711		200
	Insurance Expense	722		150
	Cleaning Supplies Expense	634		700
	Gas & Oil Expense	633		400
31	Income Summary	350	3,050	
	Retained Earnings	320		3,050
31	Retained Earnings	320	600	
	Dividends	332		600

(g)

JULIE'S MAIDS CLEANING SERVICE INC.
Post-Closing Trial Balance
July 31, 2011

	Debit	Credit
Cash	$ 6,600	
Accounts Receivable	5,200	
Cleaning Supplies	100	
Prepaid Insurance	1,650	
Equipment	10,000	
Accumulated Depreciation—Equipment		$ 200
Accounts Payable		6,400
Salaries Payable		500
Share Capital—Ordinary		14,000
Retained Earnings		2,450
	$23,550	$23,550

BYP 4-1 FINANCIAL REPORTING PROBLEM

(a) **Total current assets were £2,635 million at December 31, 2008, and £2,600 million at December 31, 2007.**

(b) **Current assets are properly listed in the reverse order of liquidity. As you will learn in the next chapter, inventory is considered to be less liquid than receivables. Thus, it is listed above receivables.**

(c) **The primary asset classifications are similar to the text: (1) goodwill, (2) intangible assets, (3) property, plant, and equipment, (4) investments, and (5) current assets.**

(d) **Cash equivalents are investments with original maturities of 3 months or less that Cadbury does not intend to rollover beyond three months.**

(e) **Total current liabilities were £3,388 million at December 31, 2008, and £4,614 million at December 31, 2007.**

BYP 4-2 COMPARATIVE ANALYSIS PROBLEM

(a)

(in millions)	Cadbury	Nestlé
1. Total current assets	£2,635	CHF33,048
2. Net property, plant & equipment	1,761	21,097
3. Total current liabilities	3,388	33,223
4. Total equity	3,534	54,916

(b) Current assets are cash and other resources that are reasonably expected to be realized in cash or sold or consumed within one year or the company's operating cycle, whichever is longer. Current liabilities are obligations that are reasonably expected to be paid from existing current assets or through the creation of other current liabilities.

Cadbury current liabilities were 29% greater than its current assets, but Nestlé's current assets were approximately the same as its current liabilities. From this information, it appears that Nestlé is in a better liquidity position than Cadbury.

BYP 4-3 EXPLORING THE WEB

The solution is dependent upon the companies chosen by the student.

BYP 4-4 DECISION MAKING ACROSS THE ORGANIZATION

(a)

WHITEGLOVES JANITORIAL SERVICE INC.
Statement of Financial Position
December 31, 2011

Assets			
Property, plant, and equipment			
Cleaning equipment ($22,000 + $4,000)	$26,000		
Less: Accum. depreciation—cleaning equipment ($4,000 + $2,000)	6,000	$20,000	
Delivery trucks ($34,000 + $5,000)	39,000		
Less: Accum. depreciation—delivery trucks ($5,000 + $5,000)	10,000	29,000	$49,000
Current assets			
Prepaid insurance ($4,800 X 2/3)		3,200	
Janitorial supplies ($5,200 – $2,700)		2,500	
Accounts receivable ($9,000 + $3,700)		12,700	
Cash		6,500	24,900
Total assets			$73,900

Equity and Liabilities		
Equity		
Share capital—ordinary	$40,000	
Retained earnings	4,650*	$44,650
Non-current liabilities		
Notes payable, due July 1, 2012		15,000
Current liabilities		
Notes payable due within one year	10,000	
Accounts payable ($2,500 + $500)	3,000	
Interest payable ($25,000 X 10% X 6/12)	1,250	14,250
Total equity and liabilities		$73,900

BYP 4-4 (Continued)

WHITEGLOVES JANITORIAL SERVICE INC.
Statement of Financial Position (Continued)
December 31, 2011

*Retained earnings balance as reported		$14,000
Add: Earned but unbilled fees		3,700
		17,700
Less: Janitorial supplies used	$2,700	
Insurance expired ($4,800 X 1/3)	1,600	
Expenses incurred but unpaid	500	
Interest accrued	1,250	
Depreciation ($2,000 + $5,000)	7,000	
Total		13,050
Retained earnings balance as adjusted		$ 4,650

(b) Whitegloves Janitorial Service met the terms of the bank loan because current assets exceed current liabilities by $10,650 ($24,900 – $14,250) at December 31, 2011.

BYP 4-5 COMMUNICATION ACTIVITY

MEMO

To: Accounting Instructor

From: Student

Re: Accounting Cycle

The required steps in the accounting cycle, in the order in which they should be completed, are:

1. Analyze business transactions.
2. Journalize the transactions.
3. Post to ledger accounts.
4. Prepare a trial balance.
5. Journalize and post adjusting entries.
6. Prepare an adjusted trial balance.
7. Prepare financial statements.
8. Journalize and post closing entries.
9. Prepare a post-closing trial balance.

The optional steps in the accounting cycle include preparing a worksheet and preparing reversing entries. If a worksheet is prepared, it is done after step 3 above, and it includes steps 4 and 6. The worksheet is a form used to make it easier to prepare adjusting entries and financial statements. If reversing entries are prepared, they are journalized and posted after step 9, at the beginning of the next accounting period. A reversing entry is the exact opposite of a previously recorded adjusting entry and simplifies the recording of subsequent transactions.

BYP 4-6 ETHICS CASE

(a) The stakeholders in this case are:

- **You, as controller.**
- **Jerry McNabb, president.**
- **Users of the company's financial statements.**

(b) The ethical issue is the continued circulation of significantly misstated financial statements. As controller, you have just issued misleading financial statements. You have acted ethically by telling the company's president. The president has reacted unethically by allowing the misleading financial statements to continue to circulate.

(c) As controller, you should impress upon the president the consequences of having those misleading financial statements be detected by some user or securities regulator. Also stress upon him that you have a professional obligation to correct the statements or to resign.

CHAPTER 5

Accounting for Merchandising Operations

ASSIGNMENT CLASSIFICATION TABLE

Study Objectives	Questions	Brief Exercises	Do It!	Exercises	A Problems	B Problems
1. Identify the differences between service and merchandising companies.	2, 3, 4	1		1		
2. Explain the recording of purchases under a perpetual inventory system.	5, 6, 7, 8	2, 4	1	2, 3, 4, 11	1A, 2A, 4A	1B, 2B, 4B
3. Explain the recording of sales revenues under a perpetual inventory system.	9, 10, 11	2, 3	2	3, 4, 5, 11	1A, 2A, 4A	1B, 2B, 4B
4. Explain the steps in the accounting cycle for a merchandising company.	1, 12, 13, 14	5, 6	3	6, 7, 8	3A, 4A, 8A	3B, 4B
5. Prepare an income statement for a merchandiser.	18	7, 8, 9	4	6, 9, 10, 12, 13, 14	2A, 3A, 8A	2B, 3B
6. Explain the computation and importance of gross profit.	15, 16, 17	9, 11		9, 12, 13	2A, 5A, 6A, 8A	2B, 5B, 6B
*7. Explain the recording of purchases and sales of inventory under a periodic inventory system.	19, 20	10, 11, 12		15, 16, 17, 18, 19	5A, 6A, 7A	5B, 6B, 7B
*8. Prepare a worksheet for a merchandising company.	21	13		20, 21	8A	

***Note:** All **asterisked** Questions, Exercises, and Problems relate to material contained in the appendices to the chapter.

ASSIGNMENT CHARACTERISTICS TABLE

Problem Number	Description	Difficulty Level	Time Allotted (min.)
1A	Journalize purchase and sales transactions under a perpetual inventory system.	Simple	20–30
2A	Journalize, post, and prepare a partial income statement.	Simple	30–40
3A	Prepare financial statements and adjusting and closing entries.	Moderate	40–50
4A	Journalize, post, and prepare a trial balance.	Simple	30–40
*5A	Determine cost of goods sold and gross profit under periodic approach.	Moderate	40–50
*6A	Calculate missing amounts and assess profitability.	Moderate	20–30
*7A	Journalize, post, and prepare trial balance and partial income statement using periodic approach.	Simple	30–40
*8A	Complete accounting cycle beginning with a worksheet.	Moderate	50–60
1B	Journalize purchase and sales transactions under a perpetual inventory system.	Simple	20–30
2B	Journalize, post, and prepare a partial income statement.	Simple	30–40
3B	Prepare financial statements and adjusting and closing entries.	Moderate	40–50
4B	Journalize, post, and prepare a trial balance.	Simple	30–40
*5B	Determine cost of goods sold and gross profit under periodic approach.	Moderate	40–50
*6B	Calculate missing amounts and assess profitability.	Moderate	20–30
*7B	Journalize, post, and prepare trial balance and partial income statement using periodic approach.	Simple	30–40

WEYGANDT IFRS 1E
CHAPTER 5
ACCOUNTING FOR MERCHANDISING OPERATIONS

Number	SO	BT	Difficulty	Time (min.)
BE1	1	AP	Simple	4–6
BE2	2, 3	AP	Simple	2–4
BE3	3	AP	Simple	6–8
BE4	2	AP	Simple	6–8
BE5	4	AP	Simple	1–2
BE6	4	AP	Simple	2–4
BE7	5	AP	Simple	2–4
BE8	5	C	Simple	4–6
BE9	5, 6	AP	Simple	4–6
BE10	7	AP	Simple	4–6
BE11	6, 7	AP	Simple	4–6
BE12	7	AP	Simple	3–5
BE13	8	K	Simple	2–4
DI1	2	AP	Simple	2–4
DI2	3	AP	Simple	4–6
DI3	4	AP	Simple	4–6
DI4	5	AP	Simple	10–12
EX1	1	C	Simple	3–5
EX2	2	AP	Simple	8–10
EX3	2, 3	AP	Simple	8–10
EX4	2, 3	AP	Simple	8–10
EX5	3	AP	Simple	8–10
EX6	4, 5	AP	Simple	6–8
EX7	4	AP	Simple	6–8
EX8	4	AP	Simple	8–10
EX9	5, 6	AP	Simple	8–10
EX10	5	AP	Simple	8–10
EX11	2, 3	AN	Moderate	6–8
EX12	5, 6	AP	Simple	8–10
EX13	5, 6	AN	Simple	6–8

ACCOUNTING FOR MERCHANDISING OPERATIONS (Continued)

Number	SO	BT	Difficulty	Time (min.)
EX14	5	AN	Moderate	8–10
EX15	7	AP	Simple	6–8
EX16	7	AP	Simple	8–10
EX17	7	AN	Moderate	10–12
EX18	7	AP	Simple	8–10
EX19	7	AP	Simple	8–10
EX20	8	AP	Simple	2–4
EX21	8	AP	Simple	8–10
P1A	2, 3	AP	Simple	20–30
P2A	2, 3, 5, 6	AP	Simple	30–40
P3A	4, 5	AN	Moderate	40–50
P4A	2–4	AP	Simple	30–40
P5A	6, 7	AP	Moderate	40–50
P6A	6, 7	AN	Moderate	20–30
P7A	7	AP	Simple	30–40
P8A	4–6, 8	AP	Moderate	50–60
P1B	2, 3	AP	Simple	20–30
P2B	2, 3, 5, 6	AP	Simple	30–40
P3B	4, 5	AN	Moderate	40–50
P4B	2–4	AP	Simple	30–40
P5B	6, 7	AP	Moderate	40–50
P6B	6, 7	AN	Moderate	20–30
P7B	7	AP	Simple	30–40
BYP1	6	AN, E	Simple	10–15
BYP2	5, 6	AN, E	Simple	15–20
BYP3	—	AP	Simple	10–15
BYP4	5, 6	AN, S, E	Moderate	20–30
BYP5	3	C	Simple	10–15
BYP6	2	E	Simple	10–15

BLOOM'S TAXONOMY TABLE

Correlation Chart between Bloom's Taxonomy, Study Objectives and End-of-Chapter Exercises and Problems

Study Objective	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
1. Identify the differences between service and merchandising companies.	Q5-2	Q5-3 E5-1 Q5-4	BE5-1			
2. Explain the recording of purchases under a perpetual inventory system.	Q5-5	Q5-6 Q5-7	Q5-8 E5-3 P5-2B BE5-2 E5-4 P5-4A BE5-4 P5-1A P5-4B DI5-1 P5-2A E5-2 P5-1B	E5-11		
3. Explain the recording of sales revenues under a perpetual inventory system.	Q5-10		Q5-11 E5-4 P5-1B BE5-2 E5-5 P5-2B BE5-3 P5-1A P5-4B DI5-2 P5-2A E5-3 P5-4A	Q5-9 E5-11		
4. Explain the steps in the accounting cycle for a merchandising company.		Q5-1 Q5-12 Q5-14	Q5-13 E5-6 P5-8A BE5-5 E5-7 P5-4B BE5-6 E5-8 DI5-3 P5-4A	P5-3A P5-3B		
5. Prepare an income statement for a merchandiser.	Q5-18	BE5-8 DI5-4	BE5-7 E5-10 P5-2B BE5-9 E5-12 P5-8A E5-6 E5-13 E5-9 P5-2A	E5-14 P5-3A P5-3B		
6. Explain the computation and importance of gross profit.		Q5-17	Q5-15 E5-9 P5-2B Q5-16 E5-12 P5-5A BE5-9 E5-13 P5-5B BE5-11 P5-2A P5-8A	P5-6A P5-6B		
*7. Explain the recording of purchases and sales under a periodic inventory system.	Q5-19		Q5-20 E5-15 P5-5A BE5-10 E5-17 P5-5B BE5-11 E5-18 P5-7A BE5-12 E5-19 P5-7B	E5-16 P5-6A P5-6B		
*8. Prepare a worksheet for a merchandising company.	Q5-21 BE5-13		E5-20 P5-8A E5-21			
Broadening Your Perspective		Communication	Exploring the Web	Financial Reporting Comparative Analysis Decision Making Across the Organization	Decision Making Across the Organization	Comparative Analysis Financial Reporting Decision Making Across the Organization Ethics Case

ANSWERS TO QUESTIONS

1. (a) Disagree. The steps in the accounting cycle are the same for both a merchandising company and a service company.
(b) The measurement of income is conceptually the same. In both types of companies, net income (or loss) results from the matching of expenses with revenues.

2. The normal operating cycle for a merchandising company is likely to be longer than in a service company because inventory must first be purchased and sold, and then the receivables must be collected.

3. (a) The components of revenues and expenses differ as follows:

	Merchandising	Service
Revenues	Sales	Fees, Rents, etc.
Expenses	Cost of Goods Sold and Operating	Operating (only)

(b) The income measurement process is as follows:

Sales Revenue	Less	Cost of Goods Sold	Equals	Gross Profit	Less	Operating Expenses	Equals	Net Income

4. Income measurement for a merchandising company differs from a service company as follows: (a) sales are the primary source of revenue and (b) expenses are divided into two main categories: cost of goods sold and operating expenses.

5. In a perpetual inventory system, cost of goods sold is determined each time a sale occurs.

6. The letters FOB mean Free on Board. FOB shipping point means that goods are placed free on board the carrier by the seller. The buyer then pays the freight and debits Merchandise Inventory. FOB destination means that the goods are placed free on board to the buyer's place of business. Thus, the seller pays the freight and debits Freight-out.

7. Credit terms of 2/10, n/30 mean that a 2% cash discount may be taken if payment is made within 10 days of the invoice date; otherwise, the invoice price, less any returns, is due 30 days from the invoice date.

8.

July 24	Accounts Payable (\$2,000 – \$200)	1,800	
	Merchandise Inventory (\$1,800 X 2%)		36
	Cash (\$1,800 – \$36)		1,764

9. Agree. In accordance with the revenue recognition principle, sales revenues are generally considered to be earned when the goods are transferred from the seller to the buyer; that is, when the exchange transaction occurs. The earning of revenue is not dependent on the collection of credit sales.

10. (a) The primary source documents are: (1) cash sales—cash register tapes and (2) credit sales—sales invoice.

(b) The entries are:

		Debit	Credit
Cash sales—	Cash	XX	
	Sales		XX
	Cost of Goods Sold	XX	
	Merchandise Inventory		XX
Credit sales—	Accounts Receivable	XX	
	Sales		XX
	Cost of Goods Sold	XX	
	Merchandise Inventory		XX

11.

July 19	Cash ($800 – $16)	784	
	Sales Discounts ($800 X 2%)	16	
	Accounts Receivable ($900 – $100)		800

12. The perpetual inventory records for merchandise inventory may be incorrect due to a variety of causes such as recording errors, theft, or waste.

13. Two closing entries are required:

(1)	Sales	200,000	
	Income Summary		200,000
(2)	Income Summary	145,000	
	Cost of Goods Sold		145,000

14. Of the merchandising accounts, only Merchandise Inventory will appear in the post-closing trial balance.

15.

Sales revenues	$105,000
Cost of goods sold	70,000
Gross profit	$ 35,000

Gross profit rate: $35,000 ÷ $105,000 = 33.3%

16.

Gross profit	¥370,000
Less: Net income	240,000
Operating expenses	¥130,000

17. There are three distinguishing features in the income statement of a merchandising company: (1) a sales revenues section, (2) a cost of goods sold section, and (3) gross profit.

18. (a) The operating activities part of the income statement has three sections: sales revenues, cost of goods sold, and operating expenses.
(b) The nonoperating activities part consists of other income (interest revenue, gain from sale of equipment) and expense (casualty losses, loss from strikes).

19.

Accounts	Added/Deducted
Purchase Returns and Allowances	Deducted
Purchase Discounts	Deducted
Freight-in	Added

***20.**

July 24	Accounts Payable ($3,000 – $200)	2,800	
	Purchase Discounts ($2,800 X 2%)		56
	Cash ($2,800 – $56)		2,744

***21.** The columns are:
(a) Merchandise Inventory—Trial Balance (Dr.), Adjusted Trial Balance (Dr.), and Statement of Financial Position (Dr.).
(b) Cost of Goods Sold—Trial Balance (Dr.), Adjusted Trial Balance (Dr.), and Income Statement (Dr.).

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 5-1

(a) Cost of goods sold = £45,000 (£75,000 – £30,000).
Operating expenses = £19,200 (£30,000 – £10,800).

(b) Gross profit = £38,000 (£108,000 – £70,000).
Operating expenses = £8,500 (£38,000 – £29,500).

(c) Sales = £151,500 (£71,900 + £79,600).
Net income = £40,100 (£79,600 – £39,500).

BRIEF EXERCISE 5-2

<u>Hollins Company</u>

Merchandise Inventory	780	
Accounts Payable		780

<u>Gordon Company</u>

Accounts Receivable	780	
Sales		780
Cost of Goods Sold	520	
Merchandise Inventory		520

BRIEF EXERCISE 5-3

(a)	Accounts Receivable	900,000	
	Sales		900,000
	Cost of Goods Sold	620,000	
	Merchandise Inventory		620,000
(b)	Sales Returns and Allowances	120,000	
	Accounts Receivable		120,000
	Merchandise Inventory	90,000	
	Cost of Goods Sold		90,000

BRIEF EXERCISE 5-3 (Continued)

(c)	Cash ($780,000 – $15,600)	764,400	
	Sales Discounts ($780,000 X 2%)	15,600	
	Accounts Receivable ($900,000 – $120,000)		780,000

BRIEF EXERCISE 5-4

(a)	Merchandise Inventory	900,000	
	Accounts Payable		900,000
(b)	Accounts Payable	120,000	
	Merchandise Inventory		120,000
(c)	Accounts Payable ($900,000 – $120,000)	780,000	
	Merchandise Inventory ($780,000 X 2%)		15,600
	Cash ($780,000 – $15,600)		764,400

BRIEF EXERCISE 5-5

Cost of Goods Sold	1,500	
Merchandise Inventory		1,500

BRIEF EXERCISE 5-6

Sales	195,000	
Income Summary		195,000
Income Summary	107,000	
Cost of Goods Sold		105,000
Sales Discounts		2,000

BRIEF EXERCISE 5-7

ZHŌU COMPANY
Income Statement (Partial)
For the Month Ended October 31, 2011

Sales revenues		
Sales (¥280,000 + ¥100,000)		¥380,000
Less: Sales returns and allowances	¥11,000	
Sales discounts	13,000	24,000
Net sales		¥356,000

BRIEF EXERCISE 5-8

The format of an income statement for a merchandising company is designed to differentiate between various sources of income and expense.

	Item	Section
(a)	Gain on sale of equipment	Other income and expense
(b)	Interest expense	After other income and expenses
(c)	Casualty loss from vandalism	Other income and expense
(d)	Cost of goods sold	Cost of goods sold
(e)	Depreciation expense	Operating expenses

BRIEF EXERCISE 5-9

(a) Net sales = $510,000 – $15,000 = $495,000.

(b) Gross profit = $495,000 – $350,000 = $145,000.

(c) Income from operations = $145,000 – $110,000 = $35,000.

(d) Gross profit rate = $145,000 ÷ $495,000 = 29.3%.

*BRIEF EXERCISE 5-10

Purchases		₩450,000
Less: Purchase returns and allowances	₩11,000	
Purchase discounts	8,000	19,000
Net purchases		₩431,000

Net purchases	₩431,000
Add: Freight-in	16,000
Cost of goods purchased	₩447,000

*BRIEF EXERCISE 5-11

Net sales		₩630,000
Beginning inventory	₩ 60,000	
Add: Cost of goods purchased*	447,000	
Cost of goods available for sale	507,000	
Ending inventory	90,000	
Cost of goods sold		417,000
Gross profit		₩213,000

*Information taken from Brief Exercise 5-10.

*BRIEF EXERCISE 5-12

(a)	Purchases	1,000,000	
	Accounts Payable		1,000,000
(b)	Accounts Payable	130,000	
	Purchase Returns and Allowances		130,000
(c)	Accounts Payable ($1,000,000 – $130,000)	870,000	
	Purchase Discounts ($870,000 X 2%)		17,400
	Cash ($870,000 – $17,400)		852,600

***BRIEF EXERCISE 5-13**

(a) Cash: Trial balance debit column; Adjusted trial balance debit column; Statement of financial position debit column.

(b) Merchandise inventory: Trial balance debit column; Adjusted trial balance debit column; Statement of financial position debit column.

(c) Sales: Trial balance credit column; Adjusted trial balance credit column, Income statement credit column.

(d) Cost of goods sold: Trial balance debit column, Adjusted trial balance debit column, Income statement debit column.

SOLUTIONS FOR DO IT! REVIEW EXERCISES

DO IT! 5-1

Oct. 5	Merchandise Inventory	5,000	
	Accounts Payable		5,000
	(To record goods purchased on account)		
Oct. 8	Accounts Payable	700	
	Merchandise Inventory		700
	(To record return of defective goods)		

DO IT! 5-2

Oct. 5	Accounts Receivable	5,000	
	Sales		5,000
	(To record credit sales)		
	Cost of Goods Sold	3,000	
	Merchandise Inventory		3,000
	(To record cost of goods sold on account)		

DO IT! 5-2 (Continued)

Oct. 8	Sales Returns and Allowances	700	
	Accounts Receivable		700
	(To record credit granted for receipt of returned goods)		
	Merchandise Inventory	250	
	Cost of Goods Sold		250
	(To record scrap value of goods returned)		

DO IT! 5-3

Dec. 31	Sales	136,000	
	Interest Revenue	5,000	
	Income Summary		141,000
	(To close accounts with credit balances)		
	Income Summary	126,800	
	Cost of Goods Sold		92,400
	Sales Returns and Allowances		4,000
	Sales Discounts		3,000
	Freight-out		1,500
	Utilities Expense		7,400
	Salaries Expense		18,500
	(To close accounts with debit balances)		

DO IT! 5-4

Account	Financial Statement	Classification
Accounts Payable	Statement of Financial Position	Current liabilities
Accounts Receivable	Statement of Financial Position	Current assets
Accumulated Depreciation—Office Building	Statement of Financial Position	Property, plant, and equipment
Cash	Statement of Financial Position	Current assets
Casualty Loss from Vandalism	Income Statement	Other income and expense
Cost of Goods Sold	Income Statement	Cost of goods sold
Delivery Equipment	Statement of Financial Position	Property, plant, and equipment
Depreciation Expense	Income Statement	Operating expenses
Dividends	Retained Earnings Statement	Deduction section
Freight-out	Income Statement	Operating expenses
Insurance Expense	Income Statement	Operating expenses
Interest Payable	Statement of Financial Position	Current liabilities
Land	Statement of Financial Position	Property, plant, and equipment
Merchandise Inventory	Statement of Financial Position	Current assets
Notes Payable (due in 5 years)	Statement of Financial Position	Non-current liabilities
Property Tax Payable	Statement of Financial Position	Current liabilities
Salaries Expense	Income Statement	Operating expenses
Salaries Payable	Statement of Financial Position	Current liabilities
Sales Returns and Allowances	Income Statement	Sales revenues
Sales	Income Statement	Sales revenues
Share Capital—Ordinary	Statement of Financial Position	Equity
Unearned Rent	Statement of Financial Position	Current liability
Utilities Expense	Income Statement	Operating expenses
Warehouse	Statement of Financial Position	Property, plant, and equipment

SOLUTIONS TO EXERCISES

EXERCISE 5-1

1. True.
2. False. For a merchandising company, sales less *cost of goods sold* is called gross profit.
3. True.
4. True.
5. False. The operating cycle of a merchandising company *differs* from that of a service company. The operating cycle of a merchandising company is ordinarily longer.
6. False. In a *periodic* inventory system, no detailed inventory records of goods on hand are maintained.
7. True.
8. False. A perpetual inventory system provides better control over inventories than a periodic system.

EXERCISE 5-2

(a)	(1)	April 5	Merchandise Inventory	25,000	
			Accounts Payable		25,000
	(2)	April 6	Merchandise Inventory	900	
			Cash		900
	(3)	April 7	Equipment	26,000	
			Accounts Payable		26,000
	(4)	April 8	Accounts Payable	4,000	
			Merchandise Inventory		4,000
	(5)	April 15	Accounts Payable ($25,000 – $4,000)	21,000	
			Merchandise Inventory [($25,000 – $4,000) X 2%]		420
			Cash ($21,000 – $420)		20,580
(b)		May 4	Accounts Payable	21,000	
			Cash		21,000

EXERCISE 5-3

Sept.	6	Merchandise Inventory (80 X €20)	1,600	
		Cash		1,600
	9	Merchandise Inventory	80	
		Cash		80
	10	Accounts Payable (2 X €21)	42	
		Merchandise Inventory		42
	12	Accounts Receivable (26 X €31)	806	
		Sales		806
		Cost of Goods Sold (26 X €21)	546	
		Merchandise Inventory		546
	14	Sales Returns and Allowances	31	
		Accounts Receivable		31
		Merchandise Inventory	21	
		Cost of Goods Sold		21
	20	Accounts Receivable (30 X €31)	930	
		Sales		930
		Cost of Goods Sold (30 X €21)	630	
		Merchandise Inventory		630

EXERCISE 5-4

(a)	June 10	Merchandise Inventory	8,000	
		Accounts Payable		8,000
	11	Merchandise Inventory	400	
		Cash		400
	12	Accounts Payable	300	
		Merchandise Inventory		300
	19	Accounts Payable ($8,000 – $300)	7,700	
		Merchandise Inventory ($7,700 X 2%)		154
		Cash ($7,700 – $154)		7,546

EXERCISE 5-4 (Continued)

			Debit	Credit
(b)	June 10	Accounts Receivable	8,000	
		Sales		8,000
		Cost of Goods Sold	5,000	
		Merchandise Inventory		5,000
	12	Sales Returns and Allowances	300	
		Accounts Receivable		300
		Merchandise Inventory	150	
		Cost of Goods Sold		150
	19	Cash ($7,700 – $154)	7,546	
		Sales Discounts ($7,700 X 2%)	154	
		Accounts Receivable ($8,000 – $300)		7,700

EXERCISE 5-5

				Debit	Credit
(a)	1.	Dec. 3	Accounts Receivable	500,000	
			Sales		500,000
			Cost of Goods Sold	350,000	
			Merchandise Inventory		350,000
	2.	Dec. 8	Sales Returns and Allowances	27,000	
			Accounts Receivable		27,000
	3.	Dec. 13	Cash (HK$473,000 – HK$9,460)	463,540	
			Sales Discounts [(HK$500,000 – HK$27,000) X 2%]	9,460	
			Accounts Receivable (HK$500,000 – HK$27,000)		473,000

		Debit	Credit
(b)	Cash	473,000	
	Accounts Receivable (HK$500,000 – HK$27,000)		473,000

EXERCISE 5-6

(a)

ZAMBRANA COMPANY
Income Statement (Partial)
For the Year Ended October 31, 2011

Sales revenues		
Sales		$800,000
Less: Sales returns and allowances	$25,000	
Sales discounts	15,000	40,000
Net sales		$760,000

Note: Freight-out is a selling expense.

(b)

(1)	Oct. 31	Sales	800,000	
		Income Summary		800,000
(2)	31	Income Summary	40,000	
		Sales Returns and Allowances		25,000
		Sales Discounts		15,000

EXERCISE 5-7

(a)	Cost of Goods Sold	900	
	Merchandise Inventory		900
(b)	Sales	108,000	
	Income Summary		108,000
	Income Summary	92,800	
	Cost of Goods Sold (TL60,000 + TL900)		60,900
	Operating Expenses		29,000
	Sales Returns and Allowances		1,700
	Sales Discounts		1,200
	Income Summary (TL108,000 – TL92,800)	15,200	
	Retained Earnings		15,200

EXERCISE 5-8

(a)	Cost of Goods Sold	600	
	Merchandise Inventory		600
(b)	Sales	350,000	
	Income Summary		350,000
	Income Summary	341,600	
	Cost of Goods Sold ($218,000 + $600)		218,600
	Freight-out		7,000
	Insurance Expense		12,000
	Rent Expense		20,000
	Salary Expense		61,000
	Sales Discounts		10,000
	Sales Returns and Allowances		13,000
	Income Summary ($350,000 – $341,600)	8,400	
	Retained Earnings		8,400

EXERCISE 5-9

(a)

OBLEY COMPANY
Income Statement
For the Month Ended March 31, 2011

Sales revenues		
Sales		£370,000
Less: Sales returns and allowances	£13,000	
Sales discounts	8,000	21,000
Net sales		349,000
Cost of goods sold		212,000
Gross profit		137,000
Operating expenses		
Salary expense	58,000	
Rent expense	32,000	
Insurance expense	12,000	
Freight-out	7,000	
Total operating expenses		109,000
Net income		£ 28,000

(b) Gross profit rate = £137,000 ÷ £349,000 = 39.26%.

EXERCISE 5-10

PELE COMPANY
Income Statement
For the Year Ended December 31, 2011

Net sales		€2,312,000
Cost of goods sold		1,289,000
Gross profit		1,023,000
Operating expenses		925,000
Income from operations		98,000
Other income and expense		
Interest revenue	€ 28,000	
Loss on sale of equipment	(10,000)	18,000
Interest expense		70,000
Net income		€ 46,000

EXERCISE 5-11

1.	Sales Returns and Allowances	175	
	Sales		175
2.	Supplies	180	
	Cash	180	
	Accounts Payable		180
	Merchandise Inventory		180
3.	Sales Discounts	110	
	Sales		110
4.	Merchandise Inventory	20	
	Cash	180	
	Freight-out		200

EXERCISE 5-12

(a) $900,000 – $540,000 = $360,000.

(b) $360,000/$900,000 = 40%. The gross profit rate is generally considered to be more useful than the gross profit amount. The rate expresses a more meaningful (qualitative) relationship between net sales and gross profit. The gross profit rate tells how many of each sales dollar go to gross profit. The trend of the gross profit rate is closely watched by financial statement users, and is compared with rates of competitors and with industry averages. Such comparisons provide information about the effectiveness of a company's purchasing function and the soundness of its pricing policies.

(c) Income from operations is $130,000 ($360,000 – $230,000), and net income is $119,000 ($130,000 – $11,000).

(d) Merchandise inventory is reported as a current asset immediately below prepaid expenses.

EXERCISE 5-13

(a) (*missing amount)

a.	Sales	PYб 90,000
	*Sales returns	(6,000)
	Net sales	PYб 84,000
b.	Net sales	PYб 84,000
	Cost of goods sold	(56,000)
	*Gross profit	PYб 28,000
c.	Gross profit	PYб 28,000
	Operating expenses	(15,000)
	*Net income	PYб 13,000
d.	*Sales	PYб105,000
	Sales returns	(5,000)
	Net sales	PYб100,000

EXERCISE 5-13 (Continued)

e.	Net sales	PYб100,000
	*Cost of goods sold	58,500
	Gross profit	PYб 41,500
f.	Gross profit	PYб 41,500
	*Operating expenses	26,500
	Net income	PYб 15,000

(b) Parlor Company

Gross profit ÷ Net sales = PYб28,000 ÷ PYб84,000 = 33.3%

Norikor Company

Gross profit ÷ Net sales = PYб41,500 ÷ PYб100,000 = 41.5%

EXERCISE 5-14

(*Missing amount)

(a)	Sales	$ 90,000
	Sales returns and allowances	9,000*
	Net sales	$ 81,000
(b)	Net sales	$ 81,000
	Cost of goods sold	56,000
	Gross profit	$ 25,000*
(c) and (d)		
	Gross profit	$ 25,000
	Operating expenses	15,000
	Income from operations (c)	$ 10,000*
	Other expenses and losses	4,000
	Net income (d)	$ 6,000*
(e)	Sales	$100,000*
	Sales returns and allowances	5,000
	Net sales	$ 95,000

EXERCISE 5-14 (Continued)

(f)	Net sales	$ 95,000
	Cost of goods sold	57,000*
	Gross profit	$ 38,000
(g) and (h)		
	Gross profit	$ 38,000
	Operating expenses (g)	20,000*
	Income from operations (h)	$ 18,000*
	Other expenses and losses	7,000
	Net income	$ 11,000
(i)	Sales	$144,000
	Sales returns and allowances	12,000
	Net sales	$132,000*
(j)	Net sales	$132,000
	Cost of goods sold	108,000*
	Gross profit	$ 24,000
(k) and (l)		
	Gross profit	$ 24,000
	Operating expenses	18,000
	Income from operations (k)	$ 6,000*
	Other expenses and losses (l)	1,000*
	Net income	$ 5,000

EXERCISE 5-15

Inventory, September 1, 2010		R_p 17,200
Purchases	R_p 149,000	
Less: Purchase returns and allowances	2,000	
Net Purchases	147,000	
Add: Freight-in	4,000	
Cost of goods purchased		151,000
Cost of goods available for sale		168,200
Inventory, August 31, 2011		25,000
Cost of goods sold		R_p143,200

EXERCISE 5-16

(a)

Sales			$800,000
Less: Sales returns and allowances		$ 10,000	
Sales discounts		5,000	15,000
Net sales			785,000
Cost of goods sold			
Inventory, January 1		50,000	
Purchases	$500,000		
Less: Purch. rets. and alls.	2,000		
Purch. discounts	6,000		
Net purchases		492,000	
Add: Freight-in		4,000	
Cost of goods available for sale		546,000	
Inventory, December 31		60,000	
Cost of goods sold			486,000
Gross profit			$299,000

(b) Gross profit $299,000 – Operating expenses = Net income $130,000.
Operating expenses = $169,000.

EXERCISE 5-17

(a)	$1,560	($1,600 – $40)	(g)	$6,500	($290 + $6,210)
(b)	$1,670	($1,560 + $110)	(h)	$1,730	($7,940 – $6,210)
(c)	$1,510	($1,820 – $310)	(i)	$8,940	($1,000 + $7,940)
(d)	$50	($1,080 – $1,030)	(j)	$6,200	($49,530 – $43,330 from (l))
(e)	$250	($1,280 – $1,030)	(k)	$2,500	($43,590 – $41,090)
(f)	$120	($1,350 – $1,230)	(l)	$43,330	($41,090 + $2,240)

*EXERCISE 5-18

(a)	1.	April 5	Purchases	20,000	
			Accounts Payable		20,000
	2.	April 6	Freight-in	900	
			Cash		900
	3.	April 7	Equipment	26,000	
			Accounts Payable		26,000
	4.	April 8	Accounts Payable	2,800	
			Purchase Returns and Allowances		2,800
	5.	April 15	Accounts Payable (€20,000 – €2,800)	17,200	
			Purchase Discounts [(€20,000 – €2,800) X 2%)]		344
			Cash (€17,200 – €344)		16,856
(b)		May 4	Accounts Payable (€20,000 – €2,800)	17,200	
			Cash		17,200

*EXERCISE 5-19

(a)	1.	April 5	Purchases	22,000	
			Accounts Payable		22,000
	2.	April 5	Freight-in	800	
			Cash		800
	3.	April 7	Equipment	26,000	
			Accounts Payable		26,000

*EXERCISE 5-19 (Continued)

4.	April 8	Accounts Payable	4,000	
		Purchase Returns and Allowances		4,000
5.	April 15	Accounts Payable ($22,000 – $4,000)............................	18,000	
		Purchase Discounts [($22,000 – $4,000) X 2%)]......		360
		Cash ($18,000 – $360)		17,640
(b)	May 4	Accounts Payable ($22,000 – $4,000)............................	18,000	
		Cash		18,000

*EXERCISE 5-20

Accounts	Adjusted Trial Balance		Income Statement		Statement of Financial Position	
	Debit	Credit	Debit	Credit	Debit	Credit
Cash	9,000				9,000	
Merchandise Inventory	76,000				76,000	
Sales		450,000		450,000		
Sales Returns and Allowances	10,000		10,000			
Sales Discounts	9,000		9,000			
Cost of Goods Sold	300,000		300,000			

*EXERCISE 5-21

RECIFE COMPANY
Worksheet
For the Month Ended June 30, 2011

Account Titles	Trial Balance Dr.	Trial Balance Cr.	Adjustments Dr.	Adjustments Cr.	Adj. Trial Balance Dr.	Adj. Trial Balance Cr.	Income Statement Dr.	Income Statement Cr.	Statement of Financial Position Dr.	Statement of Financial Position Cr.
Cash	2,320				2,320				2,320	
Accounts Receivable	2,440				2,440				2,440	
Merchandise Inventory	11,640				11,640				11,640	
Accounts Payable		1,120		1,500		2,620				2,620
Share Capital—Ordinary		3,600				3,600				3,600
Sales		42,400				42,400		42,400		
Cost of Goods Sold	20,560				20,560		20,560			
Operating Expenses	10,160		1,500		11,660		11,660			
Totals	47,120	47,120	1,500	1,500	48,620	48,620	32,220	42,400	16,400	6,220
Net Income							10,180			10,180
Totals							42,400	42,400	16,400	16,400

SOLUTIONS TO PROBLEMS

PROBLEM 5-1A

(a)	July 1	Merchandise Inventory	1,800	
		Accounts Payable		1,800
	3	Accounts Receivable	2,000	
		Sales		2,000
		Cost of Goods Sold	1,200	
		Merchandise Inventory		1,200
	9	Accounts Payable	1,800	
		Merchandise Inventory ($1,800 X .02)		36
		Cash		1,764
	12	Cash	1,980	
		Sales Discounts ($2,000 X .01)	20	
		Accounts Receivable		2,000
	17	Accounts Receivable	1,500	
		Sales		1,500
		Cost of Goods Sold	900	
		Merchandise Inventory		900
	18	Merchandise Inventory	1,700	
		Accounts Payable		1,700
		Merchandise Inventory	100	
		Cash		100
	20	Accounts Payable	300	
		Merchandise Inventory		300
	21	Cash	1,485	
		Sales Discounts ($1,500 X .01)	15	
		Accounts Receivable		1,500

PROBLEM 5-1A (Continued)

July 22	Accounts Receivable	2,250	
	Sales		2,250
	Cost of Goods Sold	1,350	
	Merchandise Inventory		1,350
30	Accounts Payable	1,400	
	Cash		1,400
31	Sales Returns and Allowances	200	
	Accounts Receivable		200
	Merchandise Inventory	120	
	Cost of Goods Sold		120

PROBLEM 5-2A

(a)

General Journal J1

Date	Account Titles and Explanation	Ref.	Debit	Credit
Apr. 2	Merchandise Inventory	120	6,900	
	Accounts Payable	201		6,900
4	Accounts Receivable	112	5,500	
	Sales	401		5,500
	Cost of Goods Sold	505	4,100	
	Merchandise Inventory	120		4,100
5	Freight-out	644	240	
	Cash	101		240
6	Accounts Payable	201	500	
	Merchandise Inventory	120		500
11	Accounts Payable (€6,900 – €500)	201	6,400	
	Merchandise Inventory (€6,400 X 1%)	120		64
	Cash	101		6,336
13	Cash	101	5,445	
	Sales Discounts (€5,500 X 1%)	414	55	
	Accounts Receivable	112		5,500
14	Merchandise Inventory	120	3,800	
	Cash	101		3,800
16	Cash	101	500	
	Merchandise Inventory	120		500
18	Merchandise Inventory	120	4,500	
	Accounts Payable	201		4,500
20	Merchandise Inventory	120	100	
	Cash	101		100

PROBLEM 5-2A (Continued)

General Journal J1

Date	Account Titles and Explanation	Ref.	Debit	Credit
Apr. 23	Cash	101	6,400	
	Sales	401		6,400
	Cost of Goods Sold	505	5,120	
	Merchandise Inventory	120		5,120
26	Merchandise Inventory	120	2,300	
	Cash	101		2,300
27	Accounts Payable	201	4,500	
	Merchandise Inventory (€4,500 X 2%)	120		90
	Cash	101		4,410
29	Sales Returns and Allowances	412	90	
	Cash	101		90
	Merchandise Inventory	120	30	
	Cost of Goods Sold	505		30
30	Accounts Receivable	112	3,700	
	Sales	401		3,700
	Cost of Goods Sold	505	2,800	
	Merchandise Inventory	120		2,800

PROBLEM 5-2A (Continued)

(b)

Cash **No. 101**

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	1	Balance	✓			9,000
	5		J1		240	8,760
	11		J1		6,336	2,424
	13		J1	5,445		7,869
	14		J1		3,800	4,069
	16		J1	500		4,569
	20		J1		100	4,469
	23		J1	6,400		10,869
	26		J1		2,300	8,569
	27		J1		4,410	4,159
	29		J1		90	4,069

Accounts Receivable **No. 112**

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	4		J1	5,500		5,500
	13		J1		5,500	0
	30		J1	3,700		3,700

Merchandise Inventory **No. 120**

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	2		J1	6,900		6,900
	4		J1		4,100	2,800
	6		J1		500	2,300
	11		J1		64	2,236
	14		J1	3,800		6,036
	16		J1		500	5,536
	18		J1	4,500		10,036
	20		J1	100		10,136
	23		J1		5,120	5,016
	26		J1	2,300		7,316
	27		J1		90	7,226
	29		J1	30		7,256
	30		J1		2,800	4,456

PROBLEM 5-2A (Continued)

Accounts Payable — **No. 201**

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	2		J1		6,900	6,900
	6		J1	500		6,400
	11		J1	6,400		0
	18		J1		4,500	4,500
	27		J1	4,500		0

Share Capital—Ordinary — **No. 311**

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	1	Balance	✓			9,000

Sales — **No. 401**

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	4		J1		5,500	5,500
	23		J1		6,400	11,900
	30		J1		3,700	15,600

Sales Returns and Allowances — **No. 412**

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	29		J1	90		90

Sales Discounts — **No. 414**

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	13		J1	55		55

Cost of Goods Sold — **No. 505**

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	4		J1	4,100		4,100
	23		J1	5,120		9,220
	29		J1		30	9,190
	30		J1	2,800		11,990

Freight-out **No. 644**

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 5		J1	240		240

(c)

OLAF DISTRIBUTING COMPANY
Income Statement (Partial)
For the Month Ended April 30, 2011

Sales revenues		
Sales		€15,600
Less: Sales returns and allowances	€90	
Sales discounts	55	145
Net sales		15,455
Cost of goods sold		11,990
Gross profit		€ 3,465

PROBLEM 5-3A

(a)

MAINE DEPARTMENT STORE
Income Statement
For the Year Ended December 31, 2011

Sales revenues		
Sales		$628,000
Less: Sales returns and allowances		8,000
Net sales		620,000
Cost of goods sold		412,700
Gross profit		207,300
Operating expenses		
Sales salaries expense	$76,000	
Office salaries expense	32,000	
Sales commissions expense	14,500	
Depr. expense—equipment	13,300	
Utilities expense	12,000	
Depr. expense—building	10,400	
Insurance expense	7,200	
Property tax expense	4,800	
Total operating expenses		170,200
Income from operations		37,100
Other income and expense		
Interest revenue		4,000
Interest expense		11,000
Net income		$ 30,100

PROBLEM 5-3A (Continued)

MAINE DEPARTMENT STORE
Retained Earnings Statement
For the Year Ended December 31, 2011

Retained earnings, January 1	$60,000
Add: Net income	30,100
	90,100
Less: Dividends	28,000
Retained earnings, December 31	$62,100

MAINE DEPARTMENT STORE
Statement of Financial Position
December 31, 2011

Assets			
Property, plant, and equipment			
Building	$190,000		
Less: Accumulated depreciation—building	52,500	$137,500	
Equipment	110,000		
Less: Accumulated depreciation—equipment	42,900	67,100	$204,600
Current assets			
Prepaid insurance		2,400	
Merchandise inventory		75,000	
Accounts receivable		50,300	
Cash		23,800	151,500
Total assets			$356,100

PROBLEM 5-3A (Continued)

MAINE DEPARTMENT STORE
Statement of Financial Position (Continued)
December 31, 2010

Equity and Liabilities		
Equity		
Share capital—ordinary	$116,600	
Retained earnings	62,100	$178,700
Non-current liabilities		
Mortgage payable		60,000
Current liabilities		
Accounts payable	79,300	
Mortgage payable due next year	20,000	
Interest payable	8,000	
Property taxes payable	4,800	
Sales commissions payable	4,300	
Utilities expense payable	1,000	117,400
Total equity and liabilities		$356,100

(b)	Dec. 31	Depreciation Expense—Building	10,400	
		Accumulated Depreciation—Building		10,400
	31	Depreciation Expense—Equipment	13,300	
		Accumulated Depreciation—Equipment		13,300
	31	Insurance Expense	7,200	
		Prepaid Insurance		7,200
	31	Interest Expense	8,000	
		Interest Payable		8,000
	31	Property Tax Expense	4,800	
		Property Taxes Payable		4,800

	31	Sales Commissions Expense	4,300	
		Sales Commissions Payable		4,300
	31	Utilities Expense	1,000	
		Utilities Expense Payable		1,000
(c)	Dec. 31	Sales	628,000	
		Interest Revenue	4,000	
		Income Summary		632,000
	31	Income Summary	601,900	
		Sales Returns and Allowances		8,000
		Cost of Goods Sold		412,700
		Office Salaries Expense		32,000
		Sales Salaries Expense		76,000
		Sales Commissions Expense		14,500
		Property Tax Expense		4,800
		Utilities Expense		12,000
		Depreciation Expense—Building		10,400
		Depreciation Expense—Equipment		13,300
		Insurance Expense		7,200
		Interest Expense		11,000
	31	Income Summary	30,100	
		Retained Earnings		30,100
	31	Retained Earnings	28,000	
		Dividends		28,000

PROBLEM 5-4A

(a)

General Journal — **J1**

Date	Account Titles and Explanation	Ref.	Debit	Credit
Apr. 4	Merchandise Inventory	120	840	
	Accounts Payable	201		840
6	Merchandise Inventory	120	40	
	Cash	101		40
8	Accounts Receivable	112	1,150	
	Sales	401		1,150
	Cost of Goods Sold	505	790	
	Merchandise Inventory	120		790
10	Accounts Payable	201	40	
	Merchandise Inventory	120		40
11	Merchandise Inventory	120	420	
	Cash	101		420
13	Accounts Payable (¥840 – ¥40)	201	800	
	Merchandise Inventory (¥800 X 2%)	120		16
	Cash	101		784
14	Merchandise Inventory	120	900	
	Accounts Payable	201		900
15	Cash	101	50	
	Merchandise Inventory	120		50
17	Merchandise Inventory	120	30	
	Cash	101		30
18	Accounts Receivable	112	810	
	Sales	401		810
	Cost of Goods Sold	505	530	
	Merchandise Inventory	120		530

General Journal **J1**

Date	Account Titles and Explanation	Ref.	Debit	Credit
Apr. 20	Cash	101	500	
	Accounts Receivable	112		500
21	Accounts Payable	201	900	
	Merchandise Inventory (¥900 X 3%)	120		27
	Cash	101		873
27	Sales Returns and Allowances	412	30	
	Accounts Receivable	112		30
30	Cash	101	660	
	Accounts Receivable	112		660

(b)

Cash **No. 101**

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 1	Balance	✓			2,500
6		J1		40	2,460
11		J1		420	2,040
13		J1		784	1,256
15		J1	50		1,306
17		J1		30	1,276
20		J1	500		1,776
21		J1		873	903
30		J1	660		1,563

Accounts Receivable **No. 112**

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 8		J1	1,150		1,150
18		J1	810		1,960
20		J1		500	1,460
27		J1		30	1,430
30		J1		660	770

PROBLEM 5-4A (Continued)

Merchandise Inventory — No. 120

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	1	Balance	✓			1,700
	4		J1	840		2,540
	6		J1	40		2,580
	8		J1		790	1,790
	10		J1		40	1,750
	11		J1	420		2,170
	13		J1		16	2,154
	14		J1	900		3,054
	15		J1		50	3,004
	17		J1	30		3,034
	18		J1		530	2,504
	21		J1		27	2,477

Accounts Payable — No. 201

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	4		J1		840	840
	10		J1	40		800
	13		J1	800		0
	14		J1		900	900
	21		J1	900		0

Share Capital—Ordinary — No. 311

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	1	Balance	✓			4,200

Sales — No. 401

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	8		J1		1,150	1,150
	18		J1		810	1,960

PROBLEM 5-4A (Continued)

Sales Returns and Allowances **No. 412**

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 27		J1	30		30

Cost of Goods Sold **No. 505**

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 8		J1	790		790
18		J1	530		1,320

(c)

LI'S TENNIS SHOP
Trial Balance
April 30, 2011

	Debit	Credit
Cash	¥1,563	
Accounts Receivable	770	
Merchandise Inventory	2,477	
Share Capital—Ordinary		¥4,200
Sales		1,960
Sales Returns and Allowances	30	
Cost of Goods Sold	1,320	
	¥6,160	¥6,160

*PROBLEM 5-5A

GORDMAN DEPARTMENT STORE
Income Statement (Partial)
For the Year Ended December 31, 2011

Sales revenues				
Sales				$718,000
Less: Sales returns and allowances				8,000
Net sales				710,000
Cost of goods sold				
Inventory, January 1			$ 40,500	
Purchases		$447,000		
Less: Purchase returns and allowances	$ 6,400			
Purchase discounts	12,000	18,400		
Net purchases		428,600		
Add: Freight-in		5,600		
Cost of goods purchased			434,200	
Cost of goods available for sale			474,700	
Inventory, December 31			75,000	
Cost of goods sold				399,700
Gross profit				$310,300

*PROBLEM 5-6A

(a)

	2009	2010	2011
Cost of goods sold:			
Beginning inventory	$ 13,000	$ 11,300	$ 14,700
Plus: Purchases	146,000	145,000	129,000
Cost of goods available	159,000	156,300	143,700
Less: Ending inventory	11,300	14,700	12,200
Cost of goods sold	$147,700	$141,600	$131,500

(b)

	2009	2010	2011
Sales	$225,700	$227,600	$219,500
Less: CGS	147,700	141,600	131,500
Gross profit	$ 78,000	$ 86,000	$ 88,000

(c)

	2009	2010	2011
Beginning accounts payable	$ 20,000	$ 31,000	$ 15,000
Plus: Purchases	146,000	145,000	129,000
Less: Payments to suppliers	135,000	161,000	127,000
Ending accounts payable	$ 31,000	$ 15,000	$ 17,000

(d) Gross profit rate	[1]34.6%	[2]37.8%	[3]40.1%
	[1]$78,000 ÷ $225,700	[2]$86,000 ÷ $227,600	[3]$88,000 ÷ $219,500

No. Even though sales declined in 2011 from each of the two prior years, the gross profit rate increased. This means that cost of goods sold declined more than sales did, reflecting better purchasing power or control of costs. Therefore, in spite of declining sales, profitability, as measured by the gross profit rate, actually improved.

*PROBLEM 5-7A

(a)

General Journal

Date	Account Titles and Explanation	Debit	Credit
Apr. 4	Purchases	740	
	Accounts Payable		740
6	Freight-in	60	
	Cash		60
8	Accounts Receivable	900	
	Sales		900
10	Accounts Payable	40	
	Purchase Returns and Allowances		40
11	Purchases	300	
	Cash		300
13	Accounts Payable (CHF740 – CHF40)	700	
	Purchase Discounts (CHF700 X 3%)		21
	Cash		679
14	Purchases	600	
	Accounts Payable		600
15	Cash	50	
	Purchase Returns and Allowances		50
17	Freight-in	30	
	Cash		30
18	Accounts Receivable	1,000	
	Sales		1,000
20	Cash	500	
	Accounts Receivable		500
21	Accounts Payable	600	
	Purchase Discounts (CHF600 X 2%)		12
	Cash		588

Date		Account Titles and Explanation	Debit	Credit
Apr.	27	Sales Returns and Allowances	30	
		Accounts Receivable		30
	30	Cash	500	
		Accounts Receivable		500

(b)

Cash

4/1 Bal.	2,500	4/6	60
4/15	50	4/11	300
4/20	500	4/13	679
4/30	500	4/17	30
		4/21	588
4/30 Bal.	1,893		

Accounts Receivable

4/8	900	4/20	500
4/18	1,000	4/27	30
		4/30	500
4/30 Bal.	870		

Merchandise Inventory

4/1 Bal.	1,700		
4/30 Bal.	1,700		

Sales Returns and Allowances

4/27	30		
4/30 Bal.	30		

Purchases

4/4	740		
4/11	300		
4/14	600		
4/30 Bal.	1,640		

Purchase Returns and Allowances

		4/10	40
		4/15	50
		4/30 Bal.	90

Accounts Payable

4/10	40	4/4	740
4/13	700	4/14	600
4/21	600		
		4/30 Bal.	0

Share Capital—Ordinary

		4/1 Bal.	4,200
		4/30 Bal.	4,200

Sales

		4/8	900
		4/18	1,000
		4/30 Bal.	1,900

Purchase Discounts

		4/13	21
		4/21	12
		4/30 Bal.	33

Freight-in

4/6	60		
4/17	30		
4/30 Bal.	90		

(c)

VILLAGE TENNIS SHOP
Trial Balance
April 30, 2011

	Debit	Credit
Cash	CHF1,893	
Accounts Receivable	870	
Merchandise Inventory	1,700	
Share Capital—Ordinary		CHF4,200
Sales		1,900
Sales Returns and Allowances	30	
Purchases	1,640	
Purchase Returns and Allowances		90
Purchase Discounts		33
Freight-in	90	
	CHF6,223	CHF6,223

VILLAGE TENNIS SHOP
Income Statement (Partial)
For the Month Ended April 30, 2011

Sales revenues				
Sales				CHF1,900
Less: Sales returns and allowances				30
Net sales				1,870
Cost of goods sold				
Inventory, April 1			CHF1,700	
Purchases		CHF1,640		
Less: Purchase returns and allowances	CHF90			
Purchase discounts	33	123		
Net purchases		1,517		
Add: Freight-in		90		
Cost of goods purchased			1,607	
Cost of goods available for sale			3,307	
Inventory, April 30			2,296	
Cost of goods sold				1,011
Gross profit				CHF 859

*PROBLEM 5-8A

(a)

TERRY MANNING FASHION CENTER
Worksheet
For the Year Ended November 30, 2011

Account Titles	Trial Balance Dr.	Trial Balance Cr.	Adjustments Dr.	Adjustments Cr.	Adjusted Trial Balance Dr.	Adjusted Trial Balance Cr.	Income Statement Dr.	Income Statement Cr.	Statement of Financial Position Dr.	Statement of Financial Position Cr.
Cash	28,700				28,700				28,700	
Accounts Receivable	30,700				30,700				30,700	
Merchandise Inventory	44,700			(e) 300	44,400				44,400	
Store Supplies	6,200			(a) 3,700	2,500				2,500	
Store Equipment	85,000				85,000				85,000	
Accum. Depreciation— Store Equipment		22,000		(b) 9,000		31,000				31,000
Delivery Equipment	48,000				48,000				48,000	
Accum. Depreciation— Delivery Equipment		6,000		(c) 5,000		11,000				11,000
Notes Payable		51,000				51,000				51,000
Accounts Payable		48,500				48,500				48,500
Share Capital—Ordinary		80,000				80,000				80,000
Retained Earnings		30,000				30,000				30,000
Dividends	12,000				12,000				12,000	
Sales		755,200				755,200		755,200		
Sales Returns and Allowances	8,800				8,800		8,800			
Cost of Goods Sold	497,400		(e) 300		497,700		497,700			
Salaries Expense	140,000				140,000		140,000			
Advertising Expense	24,400				24,400		24,400			
Utilities Expense	14,000				14,000		14,000			
Repair Expense	12,100				12,100		12,100			
Delivery Expense	16,700				16,700		16,700			
Rent Expense	24,000				24,000		24,000			
Totals	992,700	992,700								
Store Supplies Expense			(a) 3,700		3,700		3,700			
Depreciation Expense— Store Equipment			(b) 9,000		9,000		9,000			
Depreciation Expense— Delivery Equipment			(c) 5,000		5,000		5,000			
Interest Expense			(d) 4,080		4,080		4,080			
Interest Payable				(d) 4,080		4,080				4,080
Totals			22,080	22,080	1,010,780	1,010,780	759,480	755,200	251,300	255,580
Net Loss								4,280	4,280	
Totals							759,480	759,480	255,580	255,580

Key: (a) Store supplies used, (b) Depreciation expense—store equipment, (c) Depreciation expense—delivery equipment, (d) Accrued interest payable, (e) Adjustment of inventory.

*PROBLEM 5-8A (Continued)

(b)

TERRY MANNING FASHION CENTER
Income Statement
For the Year Ended November 30, 2011

Sales revenues		
Sales		$755,200
Less: Sales returns and allowances		8,800
Net sales		746,400
Cost of goods sold		497,700
Gross profit		248,700
Operating expenses		
Salaries expense	$140,000	
Advertising expense	24,400	
Rent expense	24,000	
Delivery expense	16,700	
Utilities expense	14,000	
Repair expense	12,100	
Depreciation expense—store equipment	9,000	
Depreciation expense—delivery equipment	5,000	
Store supplies expense	3,700	
Total operating expenses		248,900
Loss from operations		(200)
Interest expense		4,080
Net loss		$ (4,280)

TERRY MANNING FASHION CENTER
Retained Earnings Statement
For the Year Ended November 30, 2011

Retained earnings, December 1, 2010		$30,000
Less: Net loss	$ 4,280	
Dividends	12,000	16,280
Retained earnings, November 30, 2011		$13,720

TERRY MANNING FASHION CENTER
Statement of Financial Position
November 30, 2011

Assets			
Property, plant, and equipment			
Store equipment	$85,000		
Accumulated depreciation—store equipment	31,000	$54,000	
Delivery equipment	48,000		
Accumulated depreciation—delivery equipment	11,000	37,000	$ 91,000
Current assets			
Store supplies		2,500	
Merchandise inventory		44,400	
Accounts receivable		30,700	
Cash		28,700	106,300
Total assets			$197,300

TERRY MANNING FASHION CENTER
Statement of Financial Position (Continued)
November 30, 2011

Equity and Liabilities

Equity		
Share capital—ordinary	$80,000	
Retained earnings	13,720	$ 93,720
Non-current liabilities		
Notes payable		21,000
Current liabilities		
Notes payable due next year	30,000	
Accounts payable	48,500	
Interest payable	4,080	82,580
Total equity and liabilities		$197,300

(c)

Nov. 30	Store Supplies Expense	3,700	
	Store Supplies		3,700
30	Depreciation Expense—Store Equipment	9,000	
	Accumulated Depreciation—Store Equipment		9,000
30	Depreciation Expense—Delivery Equipment	5,000	
	Accumulated Depreciation—Delivery Equipment		5,000
30	Interest Expense	4,080	
	Interest Payable		4,080
30	Cost of Goods Sold	300	
	Merchandise Inventory		300

(d)	Nov. 30	Sales	755,200	
		Income Summary		755,200
	30	Income Summary	759,480	
		Sales Returns and Allowances		8,800
		Cost of Goods Sold		497,700
		Salaries Expense		140,000
		Advertising Expense		24,400
		Utilities Expense		14,000
		Repair Expense		12,100
		Delivery Expense		16,700
		Rent Expense		24,000
		Store Supplies Expense		3,700
		Depreciation Expense—Store Equipment		9,000
		Depreciation Expense—Delivery Equipment		5,000
		Interest Expense		4,080
	30	Retained Earnings	4,280	
		Income Summary		4,280
	30	Retained Earnings	12,000	
		Dividends		12,000

*PROBLEM 5-8A (Continued)

(e)

TERRY MANNING FASHION CENTER
Post-Closing Trial Balance
November 30, 2011

	Debit	Credit
Cash	$ 28,700	
Accounts Receivable	30,700	
Merchandise Inventory	44,400	
Store Supplies	2,500	
Store Equipment	85,000	
Accumulated Depreciation—Store Equipment		$ 31,000
Delivery Equipment	48,000	
Accumulated Depreciation—Delivery Equipment		11,000
Notes Payable		51,000
Accounts Payable		48,500
Interest Payable		4,080
Share Capital—Ordinary		80,000
Retained Earnings		13,720
	$239,300	$239,300

PROBLEM 5-1B

(a)	June	1	Merchandise Inventory	1,200	
			Accounts Payable		1,200
		3	Accounts Receivable	2,400	
			Sales		2,400
			Cost of Goods Sold	1,440	
			Merchandise Inventory		1,440
		6	Accounts Payable	100	
			Merchandise Inventory		100
		9	Accounts Payable (€1,200 – €100)	1,100	
			Merchandise Inventory (€1,100 X .02)		22
			Cash		1,078
		15	Cash	2,400	
			Accounts Receivable		2,400
		17	Accounts Receivable	1,800	
			Sales		1,800
			Cost of Goods Sold	1,080	
			Merchandise Inventory		1,080
		20	Merchandise Inventory	1,500	
			Accounts Payable		1,500
		24	Cash	1,764	
			Sales Discounts (€1,800 X .02)	36	
			Accounts Receivable		1,800
		26	Accounts Payable	1,500	
			Merchandise Inventory (€1,500 X .02)		30
			Cash		1,470

PROBLEM 5-1B (Continued)

June 28	Accounts Receivable	1,300	
	Sales		1,300
	Cost of Goods Sold	780	
	Merchandise Inventory		780
30	Sales Returns and Allowances	120	
	Accounts Receivable		120
	Merchandise Inventory	72	
	Cost of Goods Sold		72

PROBLEM 5-2B

(a)

General Journal J1

Date		Account Titles and Explanation	Ref.	Debit	Credit
May	1	Merchandise Inventory	120	4,200	
		Accounts Payable	201		4,200
	2	Accounts Receivable	112	2,100	
		Sales	401		2,100
		Cost of Goods Sold	505	1,300	
		Merchandise Inventory	120		1,300
	5	Accounts Payable	201	300	
		Merchandise Inventory	120		300
	9	Cash ($2,100 – $21)	101	2,079	
		Sales Discounts ($2,100 X 1%)	414	21	
		Accounts Receivable	112		2,100
	10	Accounts Payable ($4,200 – $300)	201	3,900	
		Merchandise Inventory ($3,900 X 2%)	120		78
		Cash	101		3,822
	11	Supplies	126	400	
		Cash	101		400
	12	Merchandise Inventory	120	1,400	
		Cash	101		1,400
	15	Cash	101	150	
		Merchandise Inventory	120		150
	17	Merchandise Inventory	120	1,300	
		Accounts Payable	201		1,300
	19	Merchandise Inventory	120	130	
		Cash	101		130

PROBLEM 5-2B (Continued)

General Journal **J1**

Date	Account Titles and Explanation	Ref.	Debit	Credit
May 24	Cash	101	3,200	
	Sales	401		3,200
	Cost of Goods Sold	505	2,000	
	Merchandise Inventory	120		2,000
25	Merchandise Inventory	120	550	
	Accounts Payable	201		550
27	Accounts Payable	201	1,300	
	Merchandise Inventory ($1,300 X 2%)	120		26
	Cash	101		1,274
29	Sales Returns and Allowances	412	60	
	Cash	101		60
	Merchandise Inventory	120	10	
	Cost of Goods Sold	505		10
31	Accounts Receivable	112	900	
	Sales	401		900
	Cost of Goods Sold	505	560	
	Merchandise Inventory	120		560

PROBLEM 5-2B (Continued)

(b)

Cash						No. 101
Date		**Explanation**	**Ref.**	**Debit**	**Credit**	**Balance**
May	1	Balance	✓			5,000
	9		J1	2,079		7,079
	10		J1		3,822	3,257
	11		J1		400	2,857
	12		J1		1,400	1,457
	15		J1	150		1,607
	19		J1		130	1,477
	24		J1	3,200		4,677
	27		J1		1,274	3,403
	29		J1		60	3,343

Accounts Receivable						No. 112
Date		**Explanation**	**Ref.**	**Debit**	**Credit**	**Balance**
May	2		J1	2,100		2,100
	9		J1		2,100	0
	31		J1	900		900

Merchandise Inventory						No. 120
Date		**Explanation**	**Ref.**	**Debit**	**Credit**	**Balance**
May	1		J1	4,200		4,200
	2		J1		1,300	2,900
	5		J1		300	2,600
	10		J1		78	2,522
	12		J1	1,400		3,922
	15		J1		150	3,772
	17		J1	1,300		5,072
	19		J1	130		5,202
	24		J1		2,000	3,202
	25		J1	550		3,752
	27		J1		26	3,726
	29		J1	10		3,736
	31		J1		560	3,176

PROBLEM 5-2B (Continued)

Supplies — No. 126

Date		Explanation	Ref.	Debit	Credit	Balance
May	11		J1	400		400

Accounts Payable — No. 201

Date		Explanation	Ref.	Debit	Credit	Balance
May	1		J1		4,200	4,200
	5		J1	300		3,900
	10		J1	3,900		0
	17		J1		1,300	1,300
	25		J1		550	1,850
	27		J1	1,300		550

Share Capital—Ordinary — No. 311

Date		Explanation	Ref.	Debit	Credit	Balance
May	1	Balance	✓			5,000

Sales — No. 401

Date		Explanation	Ref.	Debit	Credit	Balance
May	2		J1		2,100	2,100
	24		J1		3,200	5,300
	31		J1		900	6,200

Sales Returns and Allowances — No. 412

Date		Explanation	Ref.	Debit	Credit	Balance
May	29		J1	60		60

Sales Discounts — No. 414

Date		Explanation	Ref.	Debit	Credit	Balance
May	9		J1	21		21

PROBLEM 5-2B (Continued)

Cost of Goods Sold **No. 505**

Date		Explanation	Ref.	Debit	Credit	Balance
May	2		J1	1,300		1,300
	24		J1	2,000		3,300
	29		J1		10	3,290
	31		J1	560		3,850

(c)

NEWMAN HARDWARE STORE
Income Statement (Partial)
For the Month Ended May 31, 2011

Sales revenues		
Sales		$6,200
Less: Sales returns and allowances	$60	
Sales discounts	21	81
Net sales		6,119
Cost of goods sold		3,850
Gross profit		$2,269

PROBLEM 5-3B

(a)

TARP DEPARTMENT STORE
Income Statement
For the Year Ended November 30, 2011

Sales revenues		
Sales		£680,000
Less: Sales returns & allowances		8,000
Net sales		672,000
Cost of goods sold		507,000
Gross profit		165,000
Operating expenses		
Salaries expense	£96,000	
Rent expense	15,000	
Sales commissions expense	11,200	
Utilities expense	8,500	
Depreciation expense—store equipment	8,000	
Insurance expense	7,000	
Delivery expense	6,500	
Depreciation expense—delivery equipment	5,000	
Property tax expense	2,800	
Total oper. expenses		160,000
Income from operations		5,000
Other income and expense		
Interest revenue		8,000
Interest expense		6,400
Net income		£ 6,600

PROBLEM 5-3B (Continued)

TARP DEPARTMENT STORE
Retained Earnings Statement
For the Year Ended November 30, 2011

Retained earnings, December 1, 2010	£51,700
Add: Net income	6,600
	58,300
Less: Dividends	10,000
Retained earnings, November 30, 2011	£48,300

TARP DEPARTMENT STORE
Statement of Financial Position
November 30, 2011

Assets			
Property, plant, and equipment			
Store equipment	£100,000		
Less: Accumulated depreciation—store equipment	32,000	£68,000	
Delivery equipment	46,000		
Less: Accumulated depreciation—delivery equipment	15,000	31,000	£ 99,000
Current assets			
Prepaid insurance		3,500	
Merchandise inventory		29,000	
Accounts receivable		30,500	
Cash		6,000	69,000
Total assets			£168,000

PROBLEM 5-3B (Continued)

TARP DEPARTMENT STORE
Statement of Financial Position (Continued)
November 30, 2011

Equity and Liabilities		
Equity		
Share capital—ordinary	£50,000	
Retained earnings	48,300	£ 98,300
Non-current liabilities		
Notes payable due 2014		37,000
Current liabilities		
Accounts payable	25,200	
Sales commissions payable	4,700	
Property taxes payable	2,800	32,700
Total equity and liabilities		£168,000

(b)	Nov. 30	Depr. Expense—Delivery Equip.	5,000	
		Accumulated Depreciation—Delivery Equipment		5,000
		Depr. Expense—Store Equip.	8,000	
		Accumulated Depreciation—Store Equipment		8,000
		Insurance Expense	7,000	
		Prepaid Insurance		7,000
		Property Tax Expense	2,800	
		Property Taxes Payable		2,800
		Sales Commissions Expense	4,700	
		Sales Commissions Payable		4,700

(c)	Nov. 30	Sales	680,000	
		Interest Revenue	8,000	
		Income Summary		688,000
	30	Income Summary	681,400	
		Sales Returns and Allowances		8,000
		Cost of Goods Sold		507,000
		Salaries Expense		96,000
		Depreciation Expense—Delivery Equipment		5,000
		Delivery Expense		6,500
		Sales Commissions Expense		11,200
		Depreciation Expense—Store Equipment		8,000
		Insurance Expense		7,000
		Rent Expense		15,000
		Property Tax Expense		2,800
		Utilities Expense		8,500
		Interest Expense		6,400
	30	Income Summary	6,600	
		Retained Earnings		6,600
	30	Retained Earnings	10,000	
		Dividends		10,000

PROBLEM 5-4B

(a)

General Journal — J1

Date		Account Titles and Explanation	Ref.	Debit	Credit
Apr.	5	Merchandise Inventory	120	1,200	
		Accounts Payable	201		1,200
	7	Merchandise Inventory	120	50	
		Cash	101		50
	9	Accounts Payable	201	100	
		Merchandise Inventory	120		100
	10	Accounts Receivable	112	900	
		Sales	401		900
		Cost of Goods Sold	505	540	
		Merchandise Inventory	120		540
	12	Merchandise Inventory	120	670	
		Accounts Payable	201		670
	14	Accounts Payable ($1,200 – $100)	201	1,100	
		Merchandise Inventory ($1,100 X 2%)	120		22
		Cash	101		1,078
	17	Accounts Payable	201	70	
		Merchandise Inventory	120		70
	20	Accounts Receivable	112	560	
		Sales	401		560
		Cost of Goods Sold	505	340	
		Merchandise Inventory	120		340
	21	Accounts Payable ($670 – $70)	201	600	
		Merchandise Inventory ($600 X 1%)	120		6
		Cash	101		594

J1

Date	Account Titles and Explanation	Ref.	Debit	Credit
Apr. 27	Sales Returns and Allowances........	412	30	
	Accounts Receivable..................	112		30
30	Cash	101	800	
	Accounts Receivable..................	112		800

(b)

Cash No. 101

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	1	Balance	✓			1,800
	7		J1		50	1,750
	14		J1		1,078	672
	21		J1		594	78
	30		J1	800		878

Accounts Receivable No. 112

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	10		J1	900		900
	20		J1	560		1,460
	27		J1		30	1,430
	30		J1		800	630

Merchandise Inventory No. 120

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	1	Balance	✓			2,500
	5		J1	1,200		3,700
	7		J1	50		3,750
	9		J1		100	3,650
	10		J1		540	3,110
	12		J1	670		3,780
	14		J1		22	3,758
	17		J1		70	3,688
	20		J1		340	3,348
	21		J1		6	3,342

PROBLEM 5-4B (Continued)

Accounts Payable **No. 201**

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	5		J1		1,200	1,200
	9		J1	100		1,100
	12		J1		670	1,770
	14		J1	1,100		670
	17		J1	70		600
	21		J1	600		0

Share Capital—Ordinary **No. 311**

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	1	Balance	✓			4,300

Sales **No. 401**

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	10		J1		900	900
	20		J1		560	1,460

Sales Returns and Allowances **No. 412**

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	27		J1	30		30

Cost of Goods Sold **No. 505**

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	10		J1	540		540
	20		J1	340		880

(c)

CALEB'S DISCORAMA
Trial Balance
April 30, 2011

	Debit	Credit
Cash	$ 878	
Accounts Receivable	630	
Merchandise Inventory	3,342	
Share Capital—Ordinary		$4,300
Sales		1,460
Sales Returns and Allowances	30	
Cost of Goods Sold	880	
	$5,760	$5,760

*PROBLEM 5-5B

SAHIN DEPARTMENT STORE
Income Statement (Partial)
For the Year Ended November 30, 2011

Sales revenues				
Sales				TL810,000
Less: Sales returns and allowances				18,000
Net sales				792,000
Cost of goods sold				
Inventory, Dec. 1, 2010			TL 40,000	
Purchases		TL585,000		
Less: Purchase returns and allowances	TL2,700			
Purchase discounts	6,300	9,000		
Net purchases		576,000		
Add: Freight-in		4,500		
Cost of goods purchased			580,500	
Cost of goods available for sale			620,500	
Inventory, Nov. 30, 2011			32,600	
Cost of goods sold				587,900
Gross profit				TL204,100

*PROBLEM 5-6B

(1) (a) Cost of goods sold = Sales – Gross profit
= $53,300 – $38,300 = $15,000

(b) Net income = Gross profit – Operating expenses
= $38,300 – $34,900 = $3,400

(c) Merchandise inventory = 2008 Inventory + Purchases – CGS
= $7,200 + $14,200 – $15,000 = $6,400

(d) Cash payments to suppliers = 2008 Accounts payable + Purchases – 2009 Accounts payable
= $3,200 + $14,200 – $3,600 = $13,800

(e) Sales = Cost of goods sold + Gross profit
= $13,800 + $33,800 = $47,600

(f) Operating expenses = Gross profit – Net income
= $33,800 – $2,500 = $31,300

(g) 2009 Inventory + Purchases – 2010 Inventory = CGS
Purchases = CGS – 2009 Inventory + 2010 Inventory
= $13,800 – $6,400 [from (c)] + $8,100
= $15,500

(h) Cash payments to suppliers = 2009 Accounts payable + Purchases – 2010 Accounts Payable
= $3,600 + $15,500 [from (g)] – $2,500
= $16,600

(i) Gross profit = Sales – CGS
= $45,200 – $14,300 = $30,900

(j) Net income = Gross profit – Operating expenses
= $30,900 [from (i)] – $28,600 = $2,300

(k) 2010 Inventory + Purchases – 2011 Inventory = CGS
Merchandise inventory = 2010 Inventory + Purchases – CGS
= $8,100 + $13,200 – $14,300 = $7,000

(l) Accounts payable = 2010 Accounts payable + Purchases – Cash payments
= $2,500 + $13,200 – $13,600 = $2,100

*PROBLEM 5-6B (Continued)

(2) A decline in sales does not necessarily mean that profitability declined. Profitability is affected by sales, cost of goods sold, and operating expenses. If cost of goods sold or operating expenses decline more than sales, profitability can increase even when sales decline. However, in this particular case, sales declined with insufficient offsetting cost savings to improve profitability. Therefore, profitability declined for Letterman, Inc.

	2009	2010	2011
Gross profit rate	\$38,300 ÷ \$53,300 = 71.9%	\$33,800 ÷ \$47,600 = 71.0%	\$30,900 ÷ \$45,200 = 68.4%
Profit margin ratio	\$3,400 ÷ \$53,300 = 6.4%	\$2,500 ÷ \$47,600 = 5.3%	\$2,300 ÷ \$45,200 = 5.1%

*PROBLEM 5-7B

(a)

General Journal

Date		Account Titles and Explanation	Debit	Credit
Apr.	5	Purchases	1,200	
		Accounts Payable		1,200
	7	Freight-in	50	
		Cash		50
	9	Accounts Payable	100	
		Purchase Returns and Allowances		100
	10	Accounts Receivable	600	
		Sales		600
	12	Purchases	340	
		Accounts Payable		340
	14	Accounts Payable (€1,200 – €100)	1,100	
		Purchase Discounts (€1,100 X 2%)		22
		Cash (€1,100 – €22)		1,078
	17	Accounts Payable	40	
		Purchase Returns and Allowances		40
	20	Accounts Receivable	600	
		Sales		600
	21	Accounts Payable (€340 – €40)	300	
		Purchase Discounts (€300 X 1%)		3
		Cash (€300 – €3)		297
	27	Sales Returns and Allowances	35	
		Accounts Receivable		35
	30	Cash	650	
		Accounts Receivable		650

*PROBLEM 5-7B (Continued)

(b)

Cash

4/1 Bal.	3,000	4/7	50
4/30	650	4/14	1,078
		4/21	297
4/30 Bal.	2,225		

Accounts Receivable

4/10	600	4/27	35
4/20	600	4/30	650
4/30 Bal.	515		

Merchandise Inventory

4/1 Bal.	4,000		
4/30 Bal.	4,000		

Accounts Payable

4/9	100	4/5	1,200
4/14	1,100	4/12	340
4/17	40		
4/21	300		
		4/30 Bal.	0

Purchase Returns and Allowances

		4/9	100
		4/17	40
		4/30 Bal.	140

Purchase Discounts

		4/14	22
		4/21	3
		4/30 Bal.	25

Share Capital—Ordinary

		4/1 Bal.	7,000
		4/30 Bal.	7,000

Sales

		4/10	600
		4/20	600
		4/30 Bal.	1,200

Sales Returns and Allowances

4/27	35		
4/30 Bal.	35		

Purchases

4/5	1,200		
4/12	340		
4/30 Bal.	1,540		

Freight-in

4/7	50		
4/30 Bal.	50		

(c)

FIVE PINES PRO SHOP
Trial Balance
April 30, 2011

	Debit	Credit
Cash	€2,225	
Accounts Receivable	515	
Merchandise Inventory	4,000	
Share Capital—Ordinary		€7,000
Sales		1,200
Sales Returns and Allowances	35	
Purchases	1,540	
Purchase Returns and Allowances		140
Purchase Discounts		25
Freight-in	50	
	€8,365	€8,365

(d)

FIVE PINES PRO SHOP
Income Statement (Partial)
For the Month Ended April 30, 2011

Sales revenues				
Sales				€1,200
Less: Sales returns and allowances				35
Net sales				1,165
Cost of goods sold				
Inventory, April 1			€4,000	
Purchases		€1,540		
Less: Purchase returns and allowances	€140			
Purchase discounts	25	165		
Net purchases		1,375		
Add: Freight-in		50		
Cost of goods purchased			1,425	
Cost of goods available for sale			5,425	
Inventory, April 30			4,726	
Cost of goods sold				699
Gross profit				€ 466

BYP 5-1 FINANCIAL REPORTING PROBLEM

			2008
(a)	(1) Percentage change in sales: (£5,384 – £4,699) ÷ £4,699		14.6% increase
	(2) Percentage change in net income: (£366 – £407) ÷ £407		10.1% decrease
(b)	Gross profit rate:		
	2007 (£4,699 – £2,504) ÷ £4,699	46.7%	
	2008 (£5,384 – £2,870) ÷ £5,384	46.7%	
(c)	Percentage of net income to sales:		
	2007 (£407 ÷ £4,699)	8.7%	
	2008 (£366 ÷ £5,384)	6.8%	

Comment

The percentage of net income to sales declined 21.8% (8.7% to 6.8%) from 2007 to 2008. This occurred even though the gross profit rate remained unchanged at 46.7% from 2007 to 2008.

BYP 5-2 COMPARATIVE ANALYSIS PROBLEM

			Cadbury	Nestlé
(a)	(1)	2008 Gross profit (millions)	£2,514	CHF62,569
	(2)	2008 Gross profit rate	46.7%[1]	56.9%[2]
	(3)	2008 Operating income (millions)	£ 398	CHF15,024
	(4)	Percent change in operating income, 2007 to 2008	+39.2%[3]	+4.35%[4]

[1]£2,514 ÷ £5,384 [2]CHF62,569 ÷ CHF109,908

[3](£398 – £286) ÷ £286 [4](CHF15,676 – CHF15,024) ÷ CHF15,024

(b) Because the companys report using different currencies, direct comparisons of total gross profit, or total operating income are difficult. Comparisons of ratios and percentages can be performed. Nestlé reported a higher gross profit rate, while Cadbury experienced a much bigger percentage increase in operating income.

BYP 5-3 EXPLORING THE WEB

The answers to this assignment will be dependent upon the articles selected from the Internet by the student.

BYP 5-4 GROUP DECISION CASE

(a) (1)

FEDCO DEPARTMENT STORE
Income Statement
For the Year Ended December 31, 2011

Net sales [$700,000 + ($700,000 X 6%)]........		$742,000
Cost of goods sold ($742,000 X 76%)*		563,920
Gross profit ($742,000 X 24%).........................		178,080
Operating expenses		
Selling expenses	$100,000	
Administrative expenses	20,000	
Total operating expenses		120,000
Net income...		$ 58,080

*Alternatively: Net sales, $742,000 – gross profit, $178,080.

(2)

FEDCO DEPARTMENT STORE
Income Statement
For the Year Ended December 31, 2011

Net sales..		$700,000
Cost of goods sold		553,000
Gross profit		147,000
Operating expenses		
Selling expenses	$72,000*	
Administrative expenses	20,000	92,000
Net income...		$ 55,000

*$100,000 – $30,000 + ($700,000 X 2%) – ($30,000 X 40%) = $72,000.

(b) Carrie's proposed changes will increase net income by $31,080. Luke's proposed changes will reduce operating expenses by $28,000 and result in a corresponding increase in net income. Thus, if the choice is between Carrie's plan and Luke's plan, Carrie's plan should be adopted. While Luke's plan will increase net income, it may also have an adverse effect on sales personnel. Under Luke's plan, sales personnel will be taking a cut of $16,000 in compensation [$60,000 – ($30,000 + $14,000)].

BYP 5-4 (Continued)

(c)

FEDCO DEPARTMENT STORE
Income Statement
For the Year Ended December 31, 2011

Net sales		$742,000
Cost of goods sold		563,920
Gross profit		178,080
Operating expenses		
Selling expenses	$72,840*	
Administrative expenses	20,000	
Total operating expenses		92,840
Net income		$ 85,240

*$72,000 + [2% X ($742,000 – $700,000)] = $72,840.

If both plans are implemented, net income will be $58,240 ($85,240 – $27,000) higher than the 2010 results. This is an increase of over 200%. Given the size of the increase, Luke's plan to compensate sales personnel might be modified so that they would not have to take a pay cut. For example, if sales commissions were 3%, the compensation cut would be reduced to $8,580 [$16,000 (from (b)) – $742,000 X (3% – 2%)].

BYP 5-5 COMMUNICATION ACTIVITY

(a), (b)

President
Surfing USA Co.

Dear Sir:

As you know, the financial statements for Surfing USA Co. are prepared in accordance with international financial reporting standards (IFRS). One of these principles is the revenue recognition principle, which provides that revenues should be recognized when they are earned.

Typically, sales revenues are earned when the goods are transferred to the buyer from the seller. At this point, the sales transaction is completed and the sales price is established. Thus, in the typical situation, revenue on the surfboard ordered by Flutie is earned at event No. 8, when Flutie picks up the surfboard.

The circumstances pertaining to this sale may seem to you to be atypical because Flutie has ordered a specific kind of surfboard. From an accounting standpoint, this would be true only if you could not reasonably expect to sell this surfboard to another customer. In such case, it would be proper under IFRS to recognize sales revenue when you have completed the surfboard for Flutie.

Whether Flutie makes a down payment with the purchase order is irrelevant in recognizing sales revenue because at this time, you have not done anything to earn the revenue. A down payment may be an indication of Flutie's "good faith." However, its effect on your financial statements is limited entirely to recognizing the down payment as unearned revenue.

If you have further questions about the accounting for this sale, please let me know.

Sincerely,

BYP 5-6 ETHICS CASE

(a) Laura McAntee, as a new employee, is placed in a position of responsibility and is pressured by her supervisor to continue an unethical practice previously performed by him. The unethical practice is taking undeserved cash discounts. Her dilemma is either follow her boss's unethical instructions or offend her boss and maybe lose the job she just assumed.

(b) The stakeholders (affected parties) are:

- Laura McAntee, the assistant treasurer.
- Danny Feeney, the treasurer.
- Dorchester Stores, the company.
- Creditors of Dorchester Stores (suppliers).
- Mail room employees (those assigned the blame).

(c) Laura's alternatives:

1. Tell the treasurer (her boss) that she will attempt to take every allowable cash discount by preparing and mailing checks within the discount period—the ethical thing to do. This will offend her boss and may jeopardize her continued employment.

2. Join the team and continue the unethical practice of taking undeserved cash discounts.

3. Go over her boss's head and take the chance of receiving just and reasonable treatment from an officer superior to Danny. The company may not condone this practice. Laura definitely has a choice, but probably not without consequence. To continue the practice is definitely unethical. If Laura submits to this request, she may be asked to perform other unethical tasks. If Laura stands her ground and refuses to participate in this unethical practice, she probably won't be asked to do other unethical things—if she isn't fired. Maybe nobody has ever challenged Danny's unethical behavior and his reaction may be one of respect rather than anger and retribution. Being ethically compromised is no way to start a new job.

CHAPTER 6

Inventories

ASSIGNMENT CLASSIFICATION TABLE

Study Objectives	Questions	Brief Exercises	Do It!	Exercises	A Problems	B Problems
1. Describe the steps in determining inventory quantities.	1, 2, 3, 4, 5, 6	1	1	1, 2	1A	1B
2. Explain the accounting for inventories and apply the inventory cost flow methods.	7, 8, 9, 10, 18	2, 3	2	3, 4, 5, 6, 7	2A, 3A, 4A, 5A, 6A, 7A	2B, 3B, 4B, 5B, 6B, 7B
3. Explain the financial effects of the inventory cost flow assumptions.		4		3, 6, 7	2A, 3A, 4A, 5A, 6A, 7A	2B, 3B, 4B, 5B, 6B, 7B
4. Explain the lower-of-cost-or-net realizable value basis of accounting for inventories.	12, 13, 14	5	3	8, 9		
5. Indicate the effects of inventory errors on the financial statements.	15	6	3	10, 11		
6. Compute and interpret the inventory turnover ratio.	16, 17	7	4	12, 13		
*7. Apply the inventory cost flow methods to perpetual inventory records.	19, 20	18		14, 15, 16	8A, 9A	8B, 9B
*8. Describe the two methods of estimating inventories.	21, 22, 23, 24	9, 10		17, 18, 19	10A, 11A	10B, 11B
*9. Apply the LIFO inventory costing method.	11, 25	11		20, 21	12A	12B

***Note:** All **asterisked** Questions, Exercises, and Problems relate to material contained in the appendices to the chapter.

ASSIGNMENT CHARACTERISTICS TABLE

Problem Number	Description	Difficulty Level	Time Allotted (min.)
1A	Determine items and amounts to be recorded in inventory.	Moderate	15–20
2A	Determine cost of goods sold and ending inventory using FIFO and average-cost with analysis.	Simple	30–40
3A	Determine cost of goods sold and ending inventory using FIFO and average-cost with analysis.	Simple	30–40
4A	Compute ending inventory, prepare income statements, and answer questions using FIFO and average-cost.	Moderate	30–40
5A	Calculate ending inventory, cost of goods sold, gross profit, and gross profit rate under periodic method; compare results.	Moderate	30–40
6A	Compare specific identification, FIFO, and average-cost under periodic method; use cost flow assumption to influence earnings.	Moderate	20–30
7A	Compute ending inventory, prepare income statements, and answer questions using FIFO and average-cost.	Moderate	30–40
*8A	Calculate cost of goods sold and ending inventory for FIFO and average-cost, under the perpetual system; compare gross profit under each assumption.	Moderate	30–40
*9A	Determine ending inventory under a perpetual inventory system.	Moderate	40–50
*10A	Estimate inventory loss using gross profit method.	Moderate	30–40
*11A	Compute ending inventory using retail method.	Moderate	20–30
*12A	Apply the LIFO cost method (periodic).	Moderate	15–20
1B	Determine items and amounts to be recorded in inventory.	Moderate	15–20
2B	Determine cost of goods sold and ending inventory using FIFO and average-cost with analysis.	Simple	30–40
3B	Determine cost of goods sold and ending inventory using FIFO and average-cost with analysis.	Simple	30–40
4B	Compute ending inventory, prepare income statements, and answer questions using FIFO and average-cost.	Moderate	30–40
5B	Calculate ending inventory, cost of goods sold, gross profit, and gross profit rate under periodic method; compare results.	Moderate	30–40

ASSIGNMENT CHARACTERISTICS TABLE (Continued)

Problem Number	Description	Difficulty Level	Time Allotted (min.)
6B	Compare specific identification, FIFO, and average-cost under periodic method; use cost flow assumption to justify price increase.	Moderate	20–30
7B	Compute ending inventory, prepare income statements, and answer questions using FIFO and average-cost.	Moderate	30–40
*8B	Calculate cost of goods sold and ending inventory under FIFO and average-cost, under the perpetual system; compare gross profit under each assumption.	Moderate	30–40
*9B	Determine ending inventory under a perpetual inventory system.	Moderate	40–50
*10B	Compute gross profit rate and inventory loss using gross profit method.	Moderate	30–40
*11B	Compute ending inventory using retail method.	Moderate	20–30
*12B	Apply the LIFO cost method (periodic).	Moderate	15–20

WEYGANDT IFRS 1E
CHAPTER 6
INVENTORIES

Number	SO	BT	Difficulty	Time (min.)
BE1	1	C	Simple	4–6
BE2	2	K	Simple	2–4
BE3	2	AP	Simple	4–6
BE4	3	K	Simple	2–4
BE5	4	AP	Simple	4–6
BE6	5	AN	Simple	4–6
BE7	6	AP	Simple	4–6
BE8	7	AP	Simple	8–10
BE9	8	AP	Simple	4–6
BE10	8	AP	Simple	4–6
BE11	9	AP	Simple	4–6
DI1	1	AN	Simple	4–6
DI2	2	AP	Simple	6–8
DI3	4, 5	AP	Simple	6–8
DI4	6	AP	Simple	4–6
EX1	1	AN	Simple	4–6
EX2	1	AN	Simple	6–8
EX3	2, 3	AN, E	Moderate	6–8
EX4	2	AN, E	Simple	8–10
EX5	2	AP	Simple	6–8
EX6	2, 3	AP, E	Simple	8–10
EX7	2, 3	AP, E	Simple	8–10
EX8	4	AP	Simple	6–8
EX9	4	AP	Simple	4–6
EX10	5	AN	Simple	6–8
EX11	5	AN	Simple	10–12
EX12	6	AP	Simple	10–12
EX13	6	AP	Simple	8–10
EX14	7	AP	Simple	8–10
EX15	7	AP, E	Moderate	12–15
EX16	7	AP, E	Moderate	12–15
EX17	8	AP	Simple	8–10
EX18	8	AP	Simple	10–12

INVENTORIES (Continued)

Number	SO	BT	Difficulty	Time (min.)
EX19	8	AP	Moderate	10–12
EX20	9	AP	Moderate	6–8
EX21	9	AP, E	Moderate	12–15
P1A	1	AN	Moderate	15–20
P2A	2, 3	AP	Simple	30–40
P3A	2, 3	AP	Simple	30–40
P4A	2, 3	AN	Moderate	30–40
P5A	2, 3	AP, E	Moderate	30–40
P6A	2, 3	AP, E	Moderate	20–30
P7A	2, 3	AN	Moderate	30–40
*P8A	7	AP, E	Moderate	30–40
*P9A	7	AP	Moderate	40–50
*P10A	8	AP	Moderate	30–40
*P11A	8	AP	Moderate	20–30
*P12A	9	AP	Moderate	15–20
P1B	1	AN	Moderate	15–20
P2B	2, 3	AP	Simple	30–40
P3B	2, 3	AP	Simple	30–40
P4B	2, 3	AN	Moderate	30–40
P5B	2, 3	AP, E	Moderate	30–40
P6B	2, 3	AP, E	Moderate	20–30
P7B	2, 3	AN	Moderate	30–40
*P8B	7	AP, E	Moderate	30–40
*P9B	7	AP	Moderate	40–50
*P10B	8	AP	Moderate	30–40
*P11B	8	AP	Moderate	20–30
*P12B	9	AP	Moderate	15–20
BYP1	2, 6	AP	Simple	10–15
BYP2	6	E	Simple	10–15
BYP3	2, 6	AN	Simple	10–15
BYP4	8	AP	Moderate	20–25
BYP5	5	AN	Simple	10–15
BYP6	3	E	Simple	10–15

BLOOM'S TAXONOMY TABLE

Correlation Chart between Bloom's Taxonomy, Study Objectives and End-of-Chapter Exercises and Problems

Study Objective	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
1. Describe the steps in determining inventory quantities.	Q6-2 Q6-6	Q6-1 Q6-4 Q6-3 BE6-1	Q6-5 E6-1	DI6-1 P6-1A E6-1 P6-1B E6-2		
2. Explain the accounting for inventories and apply the inventory cost flow methods.	Q6-8 Q6-10 Q6-18 BE6-2 BE6-4	Q6-7 Q6-9	BE6-3 P6-2A P6-5B DI6-2 P6-2B P6-6A E6-5 P6-3A P6-6B E6-6 P6-3B E6-7 P6-5A	E6-3 P6-7B E6-4 P6-4A P6-4B P6-7A		E6-3 P6-6B E6-4 E6-6 P6-5A E6-7 P6-5B P6-6A
3. Explain the financial effects of the inventory cost flow assumptions.			BE6-4 P6-2B P6-5B E6-6 P6-3A P6-6A E6-7 P6-3B P6-6B P6-2A P6-5A	E6-3 P6-7B P6-4A P6-4B P6-7A		E6-3 P6-6B P6-5A E6-6 P6-5B E6-7 P6-6A
4. Explain the lower-of-cost-or-net realizable value basis of accounting for inventories.		Q6-12	Q6-13 E6-8 Q6-14 E6-9 BE6-5 DI6-3			
5. Indicate the effects of inventory errors on the financial statements.			DI6-3	Q6-15 E6-10 BE6-6 E6-11		
6. Compute and interpret the inventory turnover ratio.		Q6-16	BE6-7 E6-12 DI6-4 E6-13	Q6-17		
*7. Apply the inventory cost flow methods to perpetual inventory records.		Q6-19 Q6-20	BE6-8 P6-8A E6-14 P6-8B E6-15 P6-9A E6-16 P6-9B			E6-16 E6-17 P6-8A P6-8B
*8. Describe the two methods of estimating inventories.		Q6-21 Q6-22	Q6-23 E6-17 P6-11A Q6-24 E6-18 P6-10B BE6-9 E6-19 P6-11B BE6-10 P6-10A			
*9. Apply the LIFO inventory costing method.		Q6-11 Q6-25	BE6-11 P6-12A E6-20 P6-12B E6-21			
Broadening Your Perspective			Financial Reporting Decision Making Across the Organization	Exploring the Web Communication		Comp. Analysis Ethics Case

ANSWERS TO QUESTIONS

1. Agree. Effective inventory management is frequently the key to successful business operations. Management attempts to maintain sufficient quantities and types of goods to meet expected customer demand. It also seeks to avoid the cost of carrying inventories that are clearly in excess of anticipated sales.

2. Inventory items have two common characteristics: (1) they are owned by the company and (2) they are in a form ready for sale in the ordinary course of business.

3. Taking a physical inventory involves actually counting, weighing or measuring each kind of inventory on hand. Retailers, such as a hardware store, generally have thousands of different items to count. This is normally done when the store is closed.

4. (a) (1) The goods will be included in Reeves Company's inventory if the terms of sale are FOB destination.
(2) They will be included in Cox Company's inventory if the terms of sale are FOB shipping point.
(b) Reeves Company should include goods shipped to another company on consignment in its inventory. Goods held by Reeves Company on consignment should not be included in inventory.

5. Inventoriable costs are $3,020 (invoice cost $3,000 + freight charges $50 – cash discount $30). The amount paid to negotiate the purchase is a buying cost that normally is not included in the cost of inventory because of the difficulty of allocating these costs. Buying costs are expensed in the year incurred.

6. FOB shipping point means that ownership of goods in transit passes to the buyer when the public carrier accepts the goods from the seller. FOB destination means that ownership of goods in transit remains with the seller until the goods reach the buyer.

7. Actual physical flow may be impractical because many items are indistinguishable from one another. Actual physical flow may be inappropriate because management may be able to manipulate net income through specific identification of items sold.

8. The major advantage of the specific identification method is that it tracks the actual physical flow of the goods available for sale. The major disadvantage is that management could manipulate net income.

9. No. Selection of an inventory costing method is a management decision. However, once a method has been chosen, it should be used consistently from one accounting period to another.

10. (a) FIFO.
(b) Average-cost.
(c) FIFO.

11. Plato Company is using the FIFO method of inventory costing, and Cecil Company is using the LIFO method. Under FIFO, the latest goods purchased remain in inventory. Thus, the inventory on the statement of financial position should be close to current costs. The reverse is true of the LIFO method. Plato Company will have the higher gross profit because cost of goods sold will include a higher proportion of goods purchased at earlier (lower) costs.

12. Peter should know the following:
(a) A departure from the cost basis of accounting for inventories is justified when the value of the goods is lower than its cost. The writedown to net realizable value should be recognized in the period in which the price decline occurs.
(b) Net realizable value (NRV) means the net amount that a company expects to realize from the sale, not the selling price. NRV is estimated selling price less estimated costs to complete and to make a sale.

13. Garitson Music Center should report the CD players at $180 each for a total of $900. $180 is the net realizable value under the lower-of-cost-or-net realizable value basis of accounting for inventories. A decline in net realizable value usually leads to a decline in the selling price of the item. Valuation at LCNRV is an example of the accounting concept of prudence.

14. Ruthie Stores should report the toasters at $27 each for a total of $540. The $27 is the lower of cost or net realizable value. It is used because it is the lower of the inventory's cost and net realizable value.

15. (a) Mintz Company's 2010 net income will be understated €7,000; (b) 2011 net income will be overstated €7,000; and (c) the combined net income for the two years will be correct.

16. Willingham Company should disclose: (1) the major inventory classifications, (2) the basis of accounting (cost or lower-of-cost-or-net realizable value), and (3) the costing method (FIFO or average cost).

17. An inventory turnover that is too high may indicate that the company is losing sales opportunities because of inventory shortages. Inventory outages may also cause customer ill will and result in lost future sales.

18. Cadbury uses the average-cost method for its inventories.

***19.** Disagree. The results under the FIFO method are the same but the results under the average-cost method are different. The reason is that the pool of inventoriable costs (cost of goods available for sale) is not the same. Under a periodic system, the pool of costs is the goods available for sale for the entire period, whereas under a perpetual system, the pool is the goods available for sale up to the date of sale.

***20.** In a periodic system, the average is a weighted average based on total goods available for sale for the period. In a perpetual system, the average is a moving average of goods available for sale after each purchase.

***21.** Inventories must be estimated when: (1) management wants monthly or quarterly financial statements but a physical inventory is only taken annually and (2) a fire or other type of casualty makes it impossible to take a physical inventory.

***22.** In the gross profit method, the average is the gross profit rate, which is gross profit divided by net sales. The rate is often based on last year's actual rate. The gross profit rate is applied to net sales in using the gross profit method.

In the retail inventory method, the average is the cost-to-retail ratio, which is the goods available for sale at cost divided by the goods available for sale at retail. The ratio is based on current year data and is applied to the ending inventory at retail.

***23.** The estimated cost of the ending inventory is $40,000:

Net sales	$400,000
Less: Gross profit ($400,000 X 35%)	140,000
Estimated cost of goods sold	$260,000
Cost of goods available for sale	$300,000
Less: Cost of goods sold	260,000
Estimated cost of ending inventory	$ 40,000

***24.** The estimated cost of the ending inventory is £28,000:

Ending inventory at retail: £40,000 = (£120,000 – £80,000)

Cost-to-retail ratio: $70\% = \left(\dfrac{£84,000}{£120,000}\right)$

Ending inventory at cost: £28,000 = (£40,000 X 70%)

***25.** During times of rising prices, using the LIFO method for costing inventories rather than FIFO or average-cost will result in lower income taxes. Since LIFO uses the most recent, higher, costs to calculate cost of goods sold, taxable income is lower, and income taxes are also lower.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 6-1

(a) Ownership of the goods belongs to Smart. Thus, these goods should be included in Smart's inventory.

(b) The goods in transit should not be included in the inventory count because ownership by Smart does not occur until the goods reach the buyer.

(c) The goods being held belong to the customer. They should not be included in Smart's inventory.

(d) Ownership of these goods rests with the other company. Thus, these goods should not be included in the physical inventory.

BRIEF EXERCISE 6-2

The items that should be included in inventoriable costs are:

(a) Freight-in
(b) Purchase Returns and Allowances
(c) Purchases
(e) Purchase Discounts

BRIEF EXERCISE 6-3

(a) The ending inventory under FIFO consists of 200 units at $8 + 160 units at $7 for a total allocation of $2,720 or ($1,600 + $1,120).

(b) The ending inventory under average-cost consists of 360 units at $6.89* for a total allocation of $2,480.

*Average unit cost is $6.89 computed as follows:

300	X $6 =	$1,800
400	X $7 =	2,800
200	X $8 =	1,600
900		$6,200

$6,200 ÷ 900 = $6.89 (rounded).

The cost of the ending inventory is $2,480 or (360 X $6.89).

BRIEF EXERCISE 6-4

(a) FIFO would result in the highest net income.
(b) FIFO would result in the highest ending inventory.
(c) Average-cost would result in the lowest income tax expense (because it would result in the lowest net income).
(d) Average-cost would result in the most stable income over a number of years because it averages out any big changes in the cost of inventory.

BRIEF EXERCISE 6-5

Inventory Categories	Cost	Net Realizable Value	LCNRV
Cameras	€12,000	€12,100	€12,000
Camcorders	9,500	9,700	9,500
DVD players	14,000	12,800	12,800
Total valuation			€34,300

BRIEF EXERCISE 6-6

The understatement of ending inventory caused cost of goods sold to be overstated $10,000 and net income to be understated $10,000. The correct net income for 2011 is $100,000 or ($90,000 + $10,000).

Total assets in the statement of financial position will be understated by the amount that ending inventory is understated, $10,000.

BRIEF EXERCISE 6-7

Inventory turnover: $\dfrac{\$270{,}000}{(\$60{,}000 + \$40{,}000) \div 2} = \dfrac{\$270{,}000}{\$50{,}000} = 5.4$

Days in inventory: $\dfrac{365}{5.4} = 67.6$ days

*BRIEF EXERCISE 6-8

(1) FIFO Method

Product E2-D2

Date	Purchases		Cost of Goods Sold		Balance	
May 7	(50 @ $10)	$500			(50 @ $10)	$500
June 1			(30 @ $10)	$300	(20 @ $10)	$200
July 28	(30 @ $13)	$390			(20 @ $10) (30 @ $13)	} $590
Aug. 27			(20 @ $10) (20 @ $13)	} $460	(10 @ $13)	$130

(2) Moving-Average Cost

Product E2-D2

Date	Purchases		Cost of Goods Sold		Balance	
May 7	(50 @ $10)	$500			(50 @ $10)	$500
June 1			(30 @ $10)	$300	(20 @ $10)	$200
July 28	(30 @ $13)	$390			(50 @ $11.80)*	$590
Aug. 27			(40 @ $11.80)	$472	(10 @ $11.80)	$118

*($200 + $390) ÷ 50

*BRIEF EXERCISE 6-9

(1)	Net sales	¥330,000
	Less: Estimated gross profit (35% X ¥330,000)	115,500
	Estimated cost of goods sold	¥214,500
(2)	Cost of goods available for sale	¥230,000
	Less: Estimated cost of goods sold	214,500
	Estimated cost of ending inventory	¥ 15,500

***BRIEF EXERCISE 6-10**

	At Cost	At Retail
Goods available for sale	$35,000	$50,000
Net sales		40,000
Ending inventory at retail		$10,000

Cost-to-retail ratio = ($35,000 ÷ $50,000) = 70%
Estimated cost of ending inventory = ($10,000 X 70%) = $7,000

***BRIEF EXERCISE 6-11**

The ending inventory under LIFO consists of 300 units at $6 + 60 units at $7 for a total allocation of $2,220 or ($1,800 + $420).

SOLUTIONS FOR DO IT! REVIEW EXERCISES

DO IT! 6-1

Inventory per physical count	R$300,000
Inventory out on consignment	26,000
Inventory sold, in transit at year-end	–0–
Inventory purchased, in transit at year-end	17,000
Correct December 31 inventory	R$343,000

DO IT! 6-2

Cost of goods available for sale = (3,000 X $5) + (8,000 X $7) = $71,000
Ending inventory = 3,000 + 8,000 – 9,200 = 1,800 units

(a) FIFO: $71,000 – (1,800 X $7) = $58,400
(b) Average-cost: $71,000/11,000 = $6.455 per unit
9,200 X $6.455 = $59,386

DO IT! 6-3

(a) The lowest value for each inventory type is: Small $64,000, Medium $260,000, and Large $152,000. The total inventory value is the sum of these figures, $476,000.

(b)

	2011	2012
Ending inventory	$31,000 understated	No effect
Cost of goods sold	$31,000 overstated	$31,000 understated
Equity	$31,000 understated	No effect

DO IT! 6-4

	2010		2011	
Inventory turnover ratio	$\frac{\text{CHF1,200,000}}{\text{(CHF180,000 + CHF220,000)/2}}$	= 6	$\frac{\text{CHF1,425,000}}{\text{(CHF220,000 + CHF80,000)/2}}$	= 9.5
Days in inventory	365 ÷ 6 = 60.8 days		365 ÷ 9.5 = 38.4 days	

The company experienced a very significant decline in its ending inventory as a result of the just-in-time inventory. This decline improved its inventory turnover ratio and its days in inventory. It is possible that this increase is the result of a more focused inventory policy. It appears that this change is a win-win situation for Aragon Company.

SOLUTIONS TO EXERCISES

EXERCISE 6-1

Ending inventory—physical count	$297,000
1. No effect—title passes to purchaser upon shipment when terms are FOB shipping point	0
2. No effect—title does not transfer to Lima until goods are received	0
3. Add to inventory: Title passed to Lima when goods were shipped	22,000
4. Add to inventory: Title remains with Lima until purchaser receives goods	35,000
5. The goods did not arrive prior to year-end. The goods, therefore, cannot be included in the inventory	(44,000)
Correct inventory	$310,000

EXERCISE 6-2

Ending inventory—as reported	£740,000
1. Subtract from inventory: The goods belong to Superior Corporation. Strawser is merely holding them as a consignee	(250,000)
2. No effect—title does not pass to Strawser until goods are received (Jan. 3)	0
3. Subtract from inventory: Office supplies should be carried in a separate account. They are not considered inventory held for resale	(17,000)
4. Add to inventory: The goods belong to Strawser until they are shipped (Jan. 1)	30,000
5. Add to inventory: District Sales ordered goods with a cost of £8,000. Strawser should record the corresponding sales revenue of £10,000. Strawser's decision to ship extra "unordered" goods does not constitute a sale. The manager's statement that District could ship the goods back indicates that Strawser knows this over-shipment is not a legitimate sale. The manager acted unethically in an attempt to improve Strawser's reported income by over-shipping	52,000

EXERCISE 6-2 (Continued)

6. Subtract from inventory: IFRS require that inventory be valued at the lower of cost or net realizable value. Obsolete parts should be adjusted from cost to zero if they have no other use.	(40,000)
Correct inventory	£515,000

EXERCISE 6-3

(a) FIFO Cost of Goods Sold

(#1012) $100 + (#1045) $90 = $190

(b) It could choose to sell specific units purchased at specific costs if it wished to impact earnings selectively. If it wished to minimize earnings it would choose to sell the units purchased at higher costs—in which case the Cost of Goods Sold would be $190. If it wished to maximize earnings it would choose to sell the units purchased at lower costs—in which case the cost of goods sold would be $170.

(c) I recommend they use the FIFO method because it produces a more appropriate statement of financial position valuation and reduces the opportunity to manipulate earnings.

(The answer may vary depending on the method the student chooses.)

EXERCISE 6-4

(a) FIFO

Beginning inventory (26 X $97)		$ 2,522
Purchases		
Sept. 12 (45 X $102)	$4,590	
Sept. 19 (20 X $104)	2,080	
Sept. 26 (50 X $105)	5,250	11,920
Cost of goods available for sale		14,442
Less: Ending inventory (20 X $105)		2,100
Cost of goods sold		$12,342

EXERCISE 6-4 (Continued)

Proof

Date	Units	Unit Cost	Total Cost
9/1	26	$ 97	$ 2,522
9/12	45	102	4,590
9/19	20	104	2,080
9/26	30	105	3,150
	121		$12,342

Average-Cost

Cost of goods available for sale	$14,442
Less: Ending inventory (20 X $102.43*)	2,049
Cost of goods sold	$12,393

*Average unit cost is $102.43 computed as follows:

$$\frac{\$14{,}442 \text{ (Cost of goods available for sale)}}{141 \text{ units (Total units available for sale)}} = \$102.43 \text{ (rounded)}$$

Proof

121 units X $102.43 = $12,394 ($1 difference due to rounding)

(b)

FIFO $2,100 (ending inventory) + $12,342 (COGS) = $14,442
Average-cost $2,049 (ending inventory) + $12,393 (COGS) = $14,442

} Cost of goods available for sale

Under both methods, the sum of the ending inventory and cost of goods sold equals the same amount, $14,442, which is the cost of goods available for sale.

EXERCISE 6-5

FIFO

Beginning inventory (30 X $8)		$240
Purchases		
May 15 (25 X $11)	$275	
May 24 (35 X $12)	420	695
Cost of goods available for sale		935
Less: Ending inventory (25 X $12)		300
Cost of goods sold		$635

EXERCISE 6-5 (Continued)

Proof

Date	Units	Unit Cost	Total Cost
5/1	30	$ 8	$240
5/15	25	11	275
5/24	10	12	120
			$635

AVERAGE-COST

Cost of goods available for sale	$935
Less: Ending inventory (25 X $10.39)	260
Cost of goods sold	$675

*Average unit cost is $10.39 computed as follows:

$$\frac{\text{\$935 (Cost of goods available for sale)}}{\text{90 units (Total units available for sale)}} = \text{\$10.39 (rounded)}$$

Proof

65 units X $10.39 = $675

EXERCISE 6-6

(a) **FIFO**

Beginning inventory (200 X $5)		$1,000
Purchases		
June 12 (300 X $6)	$1,800	
June 23 (500 X $7)	3,500	5,300
Cost of goods available for sale		6,300
Less: Ending inventory (120 X $7)		840
Cost of goods sold		$5,460

EXERCISE 6-6 (Continued)

AVERAGE-COST

Cost of goods available for sale	$6,300
Less: Ending inventory (120 X $6.30)	756
Cost of goods sold	$5,544

Average unit cost is:

$$\frac{\$6{,}300 \text{ (Cost of goods available for sale)}}{1{,}000 \text{ units } (200 + 300 + 500)} = \$6.30$$

(b) The FIFO method will produce the higher ending inventory because costs have been rising. Under this method, the earliest costs are assigned to cost of goods sold and the latest costs remain in ending inventory. For Yount Company, the ending inventory under FIFO is $840 or (120 X $7) compared to $756 or (120 X $6.30) under average-cost.

(c) The average-cost method will produce the higher cost of goods sold for Yount Company. The cost of goods sold is $5,544 or [$6,300 –$756] compared to $5,460 or ($6,300 – $840) under FIFO.

EXERCISE 6-7

(a) (1) **FIFO**

Beginning inventory	$10,000
Purchases	26,000
Cost of goods available for sale	36,000
Less: ending inventory (80 X $130)	10,400
Cost of goods sold	$25,600

(2) **AVERAGE-COST**

Beginning inventory	$10,000
Purchases	26,000
Cost of goods available for sale	36,000
Less: ending inventory (80 X $120*)	9,600
Cost of goods sold	$26,400

*[($10,000 + $26,000) ÷ (100 + 200)]

EXERCISE 6-7 (Continued)

(b) The use of FIFO would result in the highest net income since the earlier lower costs are matched with revenues.

(c) The use of FIFO would result in inventories approximating current cost in the statement of financial position, since the more recent units are assumed to be on hand.

(d) The use of average-cost would result in Jones paying the least taxes in the first year since income will be lower.

EXERCISE 6-8

	Cost	Net Realizable Value	Lower of Cost or NRV
Cameras			
Minolta	₩ 850,000	₩ 780,000	₩ 780,000
Canon	900,000	912,000	900,000
Total	1,750,000	1,692,000	
Light meters			
Vivitar	1,500,000	1,380,000	1,380,000
Kodak	1,680,000	1,890,000	1,680,000
Total	3,180,000	3,270,000	
Total inventory	₩4,930,000	₩4,962,000	₩4,740,000

EXERCISE 6-9

	Cost	Net Realizable Value	Lower of Cost or NRV
Cameras	$ 6,500	$ 7,100	$ 6,500
DVD players	11,250	10,350	10,350
iPods	10,000	9,750	9,750
Total inventory	$27,750	$27,200	$26,600

EXERCISE 6-10

	2011	2012
Beginning inventory	€ 20,000	€ 27,000
Cost of goods purchased	150,000	175,000
Cost of goods available for sale	170,000	202,000
Corrected ending inventory	27,000[a]	41,000[b]
Cost of goods sold	€143,000	€161,000

[a]€30,000 – €3,000 = €27,000. [b]€35,000 + €6,000 = €41,000.

EXERCISE 6-11

(a)

	2011	2012
Sales	$210,000	$250,000
Cost of goods sold		
Beginning inventory	32,000	39,000
Cost of goods purchased	173,000	202,000
Cost of goods available for sale	205,000	241,000
Ending inventory ($44,000 – $5,000)	39,000	52,000
Cost of goods sold	166,000	189,000
Gross profit	$ 44,000	$ 61,000

(b) The cumulative effect on total gross profit for the two years is zero as shown below:

Incorrect gross profits:	$49,000 + $56,000 =	$105,000
Correct gross profits:	$44,000 + $61,000 =	105,000
Difference		$ 0

EXERCISE 6-11 (Continued)

(c) Dear Mr./Ms. President:

Because your ending inventory of December 31, 2011 was overstated by $5,000, your net income for 2011 was overstated by $5,000. For 2012 net income was understated by $5,000.

In a periodic system, the cost of goods sold is calculated by deducting the cost of ending inventory from the total cost of goods you have available for sale in the period. Therefore, if this ending inventory figure is overstated, as it was in December 2011, then the cost of goods sold is understated and therefore net income will be overstated by that amount. Consequently, this overstated ending inventory figure goes on to become the next period's beginning inventory amount and is a part of the total cost of goods available for sale. Therefore, the mistake repeats itself in the reverse.

The error also affects the statement of financial position at the end of 2011. The inventory reported in the statement of financial position is overstated; therefore, total assets are overstated. The overstatement of the 2011 net income results in the retained earnings account balance being overstated. The statement of financial position at the end of 2012 is correct because the overstatement of the retained earnings account at the end of 2011 is offset by the understatement of the 2012 net income and the inventory at the end of 2012 is correct.

Thank you for allowing me to bring this to your attention. If you have any questions, please contact me at your convenience.

Sincerely,

EXERCISE 6-12

	2010	2011	2012
Inventory turnover	$\frac{\$900{,}000}{(\$100{,}000 + \$300{,}000) \div 2}$	$\frac{\$1{,}120{,}000}{(\$300{,}000 + \$400{,}000) \div 2}$	$\frac{\$1{,}300{,}000}{(\$400{,}000 + \$480{,}000) \div 2}$
	$\frac{\$900{,}000}{\$200{,}000} = 4.5$	$\frac{\$1{,}120{,}000}{\$350{,}000} = 3.2$	$\frac{\$1{,}300{,}000}{\$440{,}000} = 2.95$
Days in inventory	$\frac{365}{4.5}$ = 81.1 days	$\frac{365}{3.2}$ = 114.1 days	$\frac{365}{2.95}$ = 123.7 days
Gross profit rate	$\frac{\$1{,}200{,}000 - \$900{,}000}{\$1{,}200{,}000} = .25$	$\frac{\$1{,}600{,}000 - \$1{,}120{,}000}{\$1{,}600{,}000} = .30$	$\frac{\$1{,}900{,}000 - \$1{,}300{,}000}{\$1{,}900{,}000} = .32$

EXERCISE 6-12 (Continued)

The inventory turnover ratio decreased by approximately 34% from 2010 to 2012 while the days in inventory increased by almost 53% over the same time period. Both of these changes would be considered negative since it's better to have a higher inventory turnover with a correspondingly lower days in inventory. However, Santo's Photo gross profit rate increased by 28% from 2010 to 2012, which is a positive sign.

EXERCISE 6-13

(a)

	O'Brien Company	Weinberg Company
Inventory Turnover	€190,000 / (€45,000 + €55,000)/2 = 3.80	€292,000 / (€71,000 + €69,000)/2 = 4.17
Days in Inventory	365/3.80 = 96 days	365/4.17 = 88 days

(b) Weinberg Company is moving its inventory more quickly, since its inventory turnover is higher, and its days in inventory is lower.

*EXERCISE 6-14

(1) **FIFO**

Date	Purchases		Cost of Goods Sold		Balance	
Jan. 1					(3 @ $600)	$1,800
8			(2 @ $600)	$1,200	(1 @ $600)	600
10	(6 @ $660)	$3,960			(1 @ $600)	
					(6 @ $660)	4,560
15			(1 @ $600)			
			(3 @ $660)	$2,580	(3 @ $660)	1,980

*EXERCISE 6-14 (Continued)

(2) MOVING-AVERAGE COST

Date	Purchases		Cost of Goods Sold		Balance	
Jan. 1					(3 @ $600)	$1,800
8			(2 @ $600)	$1,200	(1 @ $600)	600
10	(6 @ $660)	$3,960			(7 @ $651.43)*	4,560
15			(4 @ $651.43)	$2,606	(3 @ $651.43)	1,954

*Average-cost = ($600 + $3,960) ÷ 7 = $651.43 (rounded)

*EXERCISE 6-15

(a) The cost of goods available for sale is:

June 1 Inventory	200 @ $5	$1,000
June 12 Purchase	300 @ $6	1,800
June 23 Purchase	500 @ $7	3,500
Total cost of goods available for sale		$6,300

(1) FIFO

Date	Purchases		Cost of Goods Sold		Balance	
June 1					(200 @ $5)	$1,000
June 12	(300 @ $6)	$1,800			(200 @ $5) (300 @ $6)	$2,800
June 15			(200 @ $5) (200 @ $6)	$1,000 1,200	(100 @ $6)	$ 600
June 23	(500 @ $7)	$3,500			(100 @ $6) (500 @ $7)	$4,100
June 27			(100 @ $6) (380 @ $7)	600 2,660 $5,460	(120 @ $7)	$ 840

Ending inventory: $840. Cost of goods sold: $6,300 – $840 = $5,460.

*EXERCISE 6-15 (Continued)

(2) Moving-Average Cost

Date	Purchases		Cost of Goods Sold		Balance	
June 1					(200 @ $5)	$1,000
June 12	(300 @ $6)	$1,800			(500 @ $5.60)	$2,800
June 15			(400 @ $5.60)	$2,240	(100 @ $5.60)	$ 560
June 23	(500 @ $7)	$3,500			(600 @ $6.767)	$4,060
June 27			(480 @ $6.767)	$3,248	(120 @ $6.767)	$ 812
				$5,488		

Ending inventory: $812. Cost of goods sold: $6,300 – $812 = $5,488.

(b) FIFO gives the same ending inventory and cost of goods sold values under both the periodic and perpetual inventory system. Moving-average gives different ending inventory and cost of goods sold values under the periodic and perpetual inventory systems, due to the average calculation being based on different pools of costs.

(c) The simple average would be [($5 + $6 + $7) ÷ 3)] or $6. However, the moving-average cost method uses a weighted-average unit cost that changes each time a purchase is made rather than a simple average.

*EXERCISE 6-16

(a)

FIFO

Date	Purchases		Cost of Goods Sold		Balance	
9/1					(26 @ $ 97)	$2,522
9/5			(12 @ $ 97)	$1,164	(14 @ $ 97)	$1,358
9/12	(45 @ $102)	$4,590			(14 @ $ 97)	
					(45 @ $102)	$5,948
9/16			(14 @ $ 97)			
			(36 @ $102)	$5,030	(9 @ $102)	$ 918
9/19	(20 @ $104)	$2,080			(9 @ $102)	
					(20 @ $104)	$2,998
9/26	(50 @ $105)	$5,250			(9 @ $102)	
					(20 @ $104)	
					(50 @ $105)	$8,248
9/29			(9 @ $102)			
			(20 @ $104)			
			(30 @ $105)	$6,148	(20 @ $105)	$2,100

*EXERCISE 6-16 (Continued)

Moving-Average Cost

Date	Purchases		Cost of Goods Sold		Balance	
9/1					(26 @ $97)	$2,522
9/5			(12 @ $97)	$1,164	(14 @ $97)	$1,358
9/12	(45 @ $102)	$4,590			(59 @ $100.81)[a]	$5,948
9/16			(50 @ $100.81)	$5,041*	(9 @ $100.81)	$ 907
9/19	(20 @ $104)	$2,080			(29 @ $103.00)[b]	$2,987
9/26	(50 @ $105)	$5,250			(79 @ $104.27)[c]	$8,237
9/29			(59 @ $104.27)	$6,152*	(20 @ $104.27)	$2,085

*Rounded
[a]$5,948 ÷ 59 = $100.81
[b]$2,987 ÷ 29 = $103.00
[c]$8,237 ÷ 79 = $104.27

(b)

	Periodic	Perpetual
Ending Inventory FIFO	$2,100	$2,100
Ending Inventory Average	$2,049	$2,085

(c) FIFO yields the same ending inventory value under both the periodic and perpetual inventory system.

Average-cost yields different ending inventory values when using the periodic versus perpetual inventory system.

*EXERCISE 6-17

(a) Sales		Rs800,000,000
Cost of goods sold		
Inventory, November 1	Rs100,000,000	
Cost of goods purchased	500,000,000	
Cost of goods available for sale	600,000,000	
Inventory, December 31	120,000,000	
Cost of goods sold		480,000,000
Gross profit		Rs320,000,000

Gross profit rate Rs320,000,000/Rs800,000,000 = 40%

*EXERCISE 6-17 (Continued)

(b)	Sales	Rs10,000,000
	Less: Estimated gross profit (40% X Rs10,000,000)	4,000,000
	Estimated cost of goods sold	Rs 6,000,000
	Beginning inventory	Rs 1,200,000
	Cost of goods purchased	6,100,000
	Cost of goods available for sale	7,300,000
	Less: Estimated cost of goods sold	6,000,000
	Estimated cost of ending inventory	Rs 1,300,000

*EXERCISE 6-18

(a)	Net sales ($51,000 – $1,000)	$50,000
	Less: Estimated gross profit (40% X $50,000)	20,000
	Estimated cost of goods sold	$30,000
	Beginning inventory	$20,000
	Cost of goods purchased ($31,200 – $1,400 + $1,200)	31,000
	Cost of goods available for sale	51,000
	Less: Estimated cost of goods sold	30,000
	Estimated cost of merchandise lost	$21,000
(b)	Net sales	$50,000
	Less: Estimated gross profit (30% X $50,000)	15,000
	Estimated cost of goods sold	$35,000
	Beginning inventory	$30,000
	Cost of goods purchased	31,000
	Cost of goods available for sale	61,000
	Less: Estimated cost of goods sold	35,000
	Estimated cost of merchandise lost	$26,000

*EXERCISE 6-19

	Women's Department		Men's Department	
	Cost	Retail	Cost	Retail
Beginning inventory	$ 32,000	$ 46,000	$ 45,000	$ 60,000
Goods purchased	148,000	179,000	136,300	185,000
Goods available for sale	$180,000	225,000	$181,300	245,000
Net sales		178,000		185,000
Ending inventory at retail		$ 47,000		$ 60,000

	Women's Department	Men's Department
Cost-to-retail ratio	$\frac{\$180,000}{\$225,000} = \underline{\underline{80\%}}$	$\frac{\$181,300}{\$245,000} = \underline{\underline{74\%}}$
Estimated cost of ending inventory	$47,000 X 80% = $37,600	$60,000 X 74% = $44,400

*EXERCISE 6-20

Beginning inventory (200 X $5)		$1,000
Purchases		
June 12 (300 X $6)..	$1,800	
June 23 (500 X $7)..	3,500	5,300
Cost of goods available for sale		6,300
Less: Ending inventory (120 X $5)		600
Cost of goods sold		$5,700

*EXERCISE 6-21

(a) 1. **FIFO**

Beginning inventory	$10,000
Purchases	26,000
Cost of goods available for sale	36,000
Less: ending inventory (80 X $130)	10,400
Cost of goods sold	$25,600

2. **AVERAGE-COST**

Beginning inventory	$10,000
Purchases	26,000
Cost of goods available for sale	36,000
Less: ending inventory (80 X $120*)	9,600
Cost of goods sold	$26,400

*[($10,000 + $26,000) ÷ (100 + 200)]

3. **LIFO**

Beginning inventory	$10,000
Purchases	26,000
Cost of goods available for sale	36,000
Less: ending inventory (80 X $100)	8,000
Cost of goods sold	$28,000

(b) The use of FIFO would result in the highest net income since the earlier lower costs are matched with revenues.

(c) The use of FIFO would result in inventories approximating current cost in the statement of financial position, since the more recent units are assumed to be on hand.

(d) The use of LIFO would result in Jones paying the least taxes in the first year since income will be lower.

SOLUTIONS TO PROBLEMS

PROBLEM 6-1A

(a) The goods should not be included in inventory as they were shipped FOB shipping point and shipped February 26. Title to the goods transfers to the customer February 26. Heath should have recorded the transaction in the Sales and Accounts Receivable accounts.

(b) The amount should not be included in inventory as they were shipped FOB destination and not received until March 2. The seller still owns the inventory. No entry is recorded.

(c) Include TL500 in inventory.

(d) Include TL400 in inventory.

(e) TL750 should be included in inventory as the goods were shipped FOB shipping point.

(f) The sale will be recorded on March 2. The goods should be included in inventory at the end of February at their cost of TL250.

(g) The damaged goods should not be included in inventory. They should be recorded in a loss account since they are not saleable.

PROBLEM 6-2A

(a)

COST OF GOODS AVAILABLE FOR SALE

Date	Explanation	Units	Unit Cost	Total Cost
March 1	Beginning Inventory	1,500	$ 7	$ 10,500
5	Purchase	3,000	8	24,000
13	Purchase	5,500	9	49,500
21	Purchase	4,000	10	40,000
26	Purchase	2,000	11	22,000
	Total	16,000		$146,000

(b)

FIFO

(1) Ending Inventory

Date	Units	Unit Cost	Total Cost
March 26	2,000	$11	$22,000
21	1,500	10	15,000
	3,500*		$37,000

(2) Cost of Goods Sold

Cost of goods available for sale	$146,000
Less: Ending inventory	37,000
Cost of goods sold	$109,000

*16,000 – 12,500 = 3,500

Proof of Cost of Goods Sold

Date	Units	Unit Cost	Total Cost
March 1	1,500	$ 7	$ 10,500
5	3,000	8	24,000
13	5,500	9	49,500
21	2,500	10	25,000
	12,500		$109,000

PROBLEM 6-2A (Continued)

AVERAGE-COST

(1) Ending Inventory

$146,000 ÷ 16,000 = $9.125

Units	Unit Cost	Total Cost
3,500	$9.125	$31,938*

*rounded to nearest dollar

(2) Cost of Goods Sold

Cost of goods available for sale	$146,000
Less: Ending inventory	31,938
Cost of goods sold	$114,062

Proof of Cost of Goods Sold

12,500 units X $9.125 = $114,062

(c) 1. As shown in (b) above, FIFO produces the highest inventory amount, $37,000.

2. As shown in (b) above, average-cost produces the highest cost of goods sold, $114,062.

PROBLEM 6-3A

(a) **COST OF GOODS AVAILABLE FOR SALE**

Date	Explanation	Units	Unit Cost	Total Cost
1/1	Beginning Inventory	400	£ 8	£ 3,200
2/20	Purchase	600	9	5,400
5/5	Purchase	500	10	5,000
8/12	Purchase	300	11	3,300
12/8	Purchase	200	12	2,400
	Total	2,000		£19,300

(b) **FIFO**

(1) Ending Inventory

Date	Units	Unit Cost	Total Cost
12/8	200	£12	£2,400
8/12	300	11	3,300
	500		£5,700

(2) Cost of Goods Sold

Cost of goods available for sale	£19,300
Less: Ending inventory	5,700
Cost of goods sold	£13,600

Proof of Cost of Goods Sold

Date	Units	Unit Cost	Total Cost
1/1	400	£ 8	£ 3,200
2/20	600	9	5,400
5/5	500	10	5,000
	1,500		£13,600

AVERAGE-COST

(1) Ending Inventory

£19,300 ÷ 2,000 = £9.65

Units	Unit Cost	Total Cost
500	£9.65	£4,825

Proof of Cost of Goods Sold

1,500 units X £9.65 = £14,475

(2) Cost of Goods Sold

Cost of goods available for sale	£19,300
Less: Ending inventory	4,825
Cost of goods sold	£14,475

(c) 1. Average-cost results in the lowest inventory amount for the statement of financial position, £4,825.

2. FIFO results in the lowest cost of goods sold, £13,600.

PROBLEM 6-4A

(a)

MORALES CO.
Condensed Income Statement
For the Year Ended December 31, 2011

	FIFO	Average-Cost
Sales	$865,000	$865,000
Cost of goods sold		
Beginning inventory	32,000	32,000
Cost of goods purchased	595,000	595,000
Cost of goods available for sale	627,000	627,000
Ending inventory	84,000[a]	76,770[b]
Cost of goods sold	543,000	550,230
Gross profit	322,000	314,770
Operating expenses	147,000	147,000
Income before income taxes	175,000	167,770
Income taxes (34%)	59,500	57,042
Net income	$115,500	$110,728

[a]30,000 X $2.80 = $84,000.

[b]$627,000 ÷ 245,000 units = $2.559/unit
30,000 X $2.559 = $76,770.

(b)

1. The FIFO method produces the most meaningful inventory amount for the statement of financial position because the units are costed at the most recent purchase prices.

2. The FIFO method is most likely to approximate actual physical flow because the oldest goods are usually sold first to minimize spoilage and obsolescence.

3. There will be $2,458 additional cash available under average-cost because income taxes are $57,042 under average-cost and $59,500 under FIFO.

PROBLEM 6-5A

Cost of Goods Available for Sale

Date	Explanation	Units	Unit Cost	Total Cost
October 1	Beginning Inventory	60	€25	€1,500
9	Purchase	120	26	3,120
17	Purchase	70	27	1,890
25	Purchase	80	28	2,240
	Total	330		€8,750

Ending Inventory in Units:

Units available for sale	330
Sales (100 + 60 + 110)	270
Units remaining in ending inventory	60

Sales Revenue

Date	Units	Unit Price	Total Sales
October 11	100	€35	€ 3,500
22	60	40	2,400
29	110	40	4,400
	270		€10,300

(a)

(1) FIFO

(i) Ending Inventory

October 25 60 @ €28 = €1,680

(ii) Cost of Goods Sold

Cost of goods available for sale	€ 8,750
Less: Ending inventory	1,680
Cost of goods sold	€ 7,070

(iii) Gross Profit

Sales revenue	€10,300
Cost of goods sold	7,070
Gross profit	€ 3,230

(iv) Gross Profit Rate

$$\frac{\text{Gross profit}}{\text{Net sales}} \quad \frac{€\ 3,230}{€10,300} = 31.4\%$$

PROBLEM 6-5A (Continued)

(2) Average-Cost

Weighted-average cost per unit: $\dfrac{\text{Cost of goods available for sale}}{\text{Units available for sale}}$

$\dfrac{€8{,}750}{330} = €26.515$

(i) Ending Inventory

60 @ €26.515 = €1,591*

*rounded to nearest euro

(ii) Cost of Goods Sold

Cost of goods available for sale	€8,750
Less: Ending inventory	1,591
Cost of goods sold	€7,159

(iii) Gross Profit

Sales revenue	€10,300
Cost of goods sold	7,159
Gross profit	€ 3,141

(iv) Gross Profit Rate

$\dfrac{\text{Gross profit}}{\text{Net sales}} \quad \dfrac{€\ 3{,}141}{€10{,}300} = 30.5\%$

(b) Average-cost produces a lower ending inventory value, gross profit, and gross profit rate because its cost of goods sold is higher than FIFO.

PROBLEM 6-6A

(a) (1) To maximize gross profit, Bernelli Diamonds should sell the diamonds with the lowest cost.

Sale Date	Cost of Goods Sold		Sales Revenue	
March 5	150 @ $300	$ 45,000	180 @ $600	$108,000
	30 @ $350	10,500	400 @ $650	260,000
March 25	170 @ $350	59,500		
	230 @ $375	86,250		
	580	$201,250	580	$368,000

Gross profit $368,000 – $201,250 = $166,750.

(2) To minimize gross profit, Bernelli Diamonds should sell the diamonds with the highest cost.

Sale Date	Cost of Goods Sold		Sales Revenue	
March 5	180 @ $350	$ 63,000	180 @ $600	$108,000
March 25	350 @ $375	131,250	400 @ $650	260,000
	20 @ $350	7,000		
	30 @ $300	9,000		
	580	$210,250	580	$368,000

Gross profit $368,000 – $210,250 = $157,750.

(b) FIFO

Cost of goods available for sale

March 1	Beginning inventory	150 @ $300	$ 45,000
3	Purchase	200 @ $350	70,000
10	Purchase	350 @ $375	131,250
		700	$246,250

Goods available for sale	700	
Units sold	580	
Ending inventory	120 @ $375	$ 45,000

Goods available for sale	**$246,250**
– Ending inventory	**45,000**
Cost of goods sold	**$201,250**

Gross profit: $368,000 – $201,250 = $166,750.

(c) Average-Cost

Cost of goods available for sale (from part b)		**$246,250**
– Ending inventory	**120 @ $351.786***	**42,214**
Cost of goods sold		**$204,036**

Gross profit: $368,000 – $204,036 = $163,964.

***$246,250 ÷ 700 units = $351.786/unit**

(d) The choice of inventory method depends on the company's objectives. Since the diamonds are marked and coded, the company could use specific identification. This could, however, result in "earnings management" by the company because, as shown, it could carefully choose which diamonds to sell to result in the maximum or minimum income. Employing a cost flow assumption, such as average-cost or FIFO, would reduce record-keeping costs. FIFO would result in higher income, but average-cost would reduce income taxes.

PROBLEM 6-7A

(a)

UTLEY LTD.
Condensed Income Statement
For the Year Ended December 31, 2011

	FIFO	Average-Cost
Sales	£665,000	£665,000
Cost of goods sold		
Beginning inventory	35,000	35,000
Cost of goods purchased	504,500	504,500
Cost of goods available for sale	539,500	539,500
Ending inventory	133,500[a]	124,500[b]
Cost of goods sold	406,000	415,000
Gross profit	259,000	250,000
Operating expenses	130,000	130,000
Income before income taxes	129,000	120,000
Income tax expense (28%)	36,120	33,600
Net income	£ 92,880	£ 86,400

[a](25,000 @ £4.50) + (5,000 @ £4.20) = £133,500.
[b]£539,500 ÷ 130,000 units = £4.15 per unit; 30,000 @ £4.15 = £124,500.

(b) Answers to questions:

1. The FIFO method produces the most meaningful inventory amount for the statement of financial position because the units are costed at the most recent purchase prices.

2. The FIFO method is most likely to approximate actual physical flow because the oldest goods are usually sold first to minimize spoilage and obsolescence.

3. There will be £2,520 additional cash available under average-cost because income taxes are £33,600 under average-cost and £36,120 under FIFO.

PROBLEM 6-7A (Continued)

Answer in business letter form:

Dear Utley Ltd.

After preparing the comparative condensed income statements for 2011 under FIFO and average-cost methods, we have found the following:

The FIFO method produces the most meaningful inventory amount for the statement of financial position because the units are costed at the most recent purchase prices. This method is most likely to approximate actual physical flow because the oldest goods are usually sold first to minimize spoilage and obsolescence.

There will be £2,520 additional cash available under average-cost because income taxes are £33,600 under average-cost and £36,120 under FIFO.

Sincerely,

*PROBLEM 6-8A

(a)

Sales:

Date		
January 6	150 units @ $40	$ 6,000
January 9 (return)	(10 units @ $40)	(400)
January 10	50 units @ $45	2,250
January 30	110 units @ $50	5,500
Total sales		$13,350

(1) FIFO

Date	Purchases		Cost of Goods Sold		Balance	
January 1					(150 @ $17)	$2,550
					(150 @ $17)	
January 2	(100 @ $21)	$2,100			(100 @ $21)	$4,650
January 6			(150 @ $17)	$2,550	(100 @ $21)	$2,100
January 9			(–10 @ $17)	($ 170)	(10 @ $17)	
January 9	(75 @ $24)	$1,800			(100 @ $21)	$4,070
					(75 @ $24)	
					(10 @ $17)	
					(100 @ $21)	$3,710
January 10	(–15 @ $24)	($ 360)			(60 @ $24)	
January 10			(10 @ $17)	$1,010	(60 @ $21)	$2,700
			(40 @ $21)		(60 @ $24)	
January 23	(100 @ $28)	$2,800			(60 @ $21)	
					(60 @ $24)	$5,500
					(100 @ $28)	
January 30			(60 @ $21)	$2,460	(10 @ $24)	$3,040
			(50 @ $24)		(100 @ $28)	
				$5,850		

(i) Cost of goods sold = $5,850. (ii) Ending inventory = $3,040. (iii) Gross profit = $13,350 – $5,850 = $7,500.

*PROBLEM 6-8A (Continued)

(2) Moving-Average

Date	Purchases		Cost of goods sold		Balance	
January 1					(150 @ $17)	$2,550
January 2	(100 @ $21)	$2,100			(250 @ $18.60)[a]	$4,650
January 6			(150 @ $18.60)	$2,790	(100 @ $18.60)	$1,860
January 9			(–10 @ $18.60)	($ 186)	(110 @ $18.60)	$2,046
January 9	(75 @ $24)	$1,800			(185 @ $20.789)[b]	$3,846
January 10	(–15 @ $24)	($ 360)			(170 @ $20.506)[c]	$3,486
January 10			(50 @ $20.506)	$1,025	(120 @ $20.506)	$2,461
January 23	(100 @ $28)	$2,800			(220 @ $23.914)[d]	$5,261
January 30			(110 @ $23.914)	$2,631	(110 @ $23.914)	$2,630
				$6,260		

[a]$4,650 ÷ 250 = $18.60
[b]$3,846 ÷ 185 = $20.789
[c]$3,486 ÷ 170 = $20.506
[d]$5,261 ÷ 220 = $23.914

(i) Cost of goods sold = $6,260. (ii) Ending inventory = $2,630. (iii) Gross profit = $13,350 – $6,260 = $7,090.

(b)

Gross profit:	FIFO	Moving-Average
Sales	$13,350	$13,350
Cost of goods sold	5,850	6,260
Gross profit	$ 7,500	$ 7,090
Ending inventory	$ 3,040	$ 2,630

In a period of rising costs, the moving-average cost flow assumption results in the highest cost of goods sold and lowest gross profit. FIFO gives the lowest cost of goods sold and highest gross profit.

On the statement of financial position, FIFO gives the highest ending inventory (representing the most current costs); and average-cost gives the lowest ending inventory.

*PROBLEM 6-9A

(a) (1) FIFO

Date	Purchases		Cost of Goods Sold		Balance	
May 1	(7 @ $150)	$1,050			(7 @ $150)	$1,050
4			(4 @ $150)	$600	(3 @ $150)	$ 450
8	(8 @ $170)	$1,360			(3 @ $150) (8 @ $170)	$1,810
12			(3 @ $150) (2 @ $170)	$790	(6 @ $170)	$1,020
15	(6 @ $185)	$1,110			(6 @ $170) (6 @ $185)	$2,130
20			(3 @ $170)	$510	(3 @ $170) (6 @ $185)	$1,620
25			(3 @ $170) (1 @ $185)	$695	(5 @ $185)	$ 925

(2) MOVING-AVERAGE COST

Date	Purchases		Cost of Goods Sold		Balance	
May 1	(7 @ $150)	$1,050			(7 @ $150)	$1,050
4			(4 @ $150)	$600	(3 @ $150)	$ 450
8	(8 @ $170)	$1,360			(11 @ $164.55)*	$1,810
12			(5 @ $164.55)	$823	(6 @ $164.55)	$ 987
15	(6 @ $185)	$1,110			(12 @ $174.75)**	$2,097
20			(3 @ $174.75)	$524	(9 @ $174.75)	$1,573
25			(4 @ $174.75)	$699	(5 @ $174.75)	$ 874

*Average-cost = $1,810 ÷ 11 (rounded)
**$2,097 ÷ 12

(b) 1. The highest ending inventory is $925 under the FIFO method.

2. The lowest ending inventory is $874 under the moving-average method.

*PROBLEM 6-10A

(a)

			February
Net sales			€300,000
Cost of goods sold			
Beginning inventory		€ 4,500	
Net purchases	€197,800		
Add: Freight-in	2,900		
Cost of goods purchased		200,700	
Cost of goods available for sale		205,200	
Ending inventory		13,200	
Cost of goods sold			192,000
Gross profit			€108,000

$$\text{Gross profit rate} = \frac{€108,000}{€300,000} = 36\%$$

(b)

Net sales		€250,000
Less: Estimated gross profit (36% X €250,000)		90,000
Estimated cost of goods sold		€160,000
Beginning inventory		€ 13,200
Net purchases	€191,000	
Add: Freight-in	4,000	
Cost of goods purchased		195,000
Cost of goods available for sale		208,200
Less: Estimated cost of goods sold		160,000
Estimated total cost of ending inventory		48,200
Less: Inventory not lost (30% X €48,200)		14,460
Estimated inventory lost in fire (70% X €48,200)		€ 33,740

*PROBLEM 6-11A

(a)

	Sporting Goods		Jewelry and Cosmetics	
	Cost	Retail	Cost	Retail
Beginning inventory	$ 47,360	$ 74,000	$ 39,440	$ 62,000
Purchases	675,000	1,066,000	741,000	1,158,000
Purchase returns	(26,000)	(40,000)	(12,000)	(20,000)
Purchase discounts	(12,360)		(2,440)	
Freight-in	9,000		14,000	
Goods available for sale	$693,000	1,100,000	$780,000	1,200,000
Net sales		(1,000,000)		(1,160,000)
Ending inventory at retail		$ 100,000		$ 40,000

Cost-to-retail ratio:

Sporting Goods—$693,000 ÷ $1,100,000 = 63%.
Jewelry and Cosmetics—$780,000 ÷ $1,200,000 = 65%.

Estimated ending inventory at cost:

$100,000 X 63% = $63,000—Sporting Goods.
$ 40,000 X 65% = $26,000—Jewelry and Cosmetics.

(b) Sporting Goods—$95,000 X 60% = $57,000.
Jewelry and Cosmetics—$44,000 X 64% = $28,160.

*PROBLEM 6-12A

Cost of Goods Available for Sale

Date	Explanation	Units	Unit Cost	Total Cost
October 1	Beginning Inventory	60	€25	€1,500
9	Purchase	120	26	3,120
17	Purchase	70	27	1,890
25	Purchase	80	28	2,240
	Total	330		€8,750

Ending Inventory in Units:

Units available for sale	330
Sales (100 + 60 + 110)	270
Units remaining in ending inventory	60

Ending Inventory

October 1 60 @ €25 = €1,500

PROBLEM 6-1B

(a) The sale will be recorded on February 26. The goods (cost, $800) should be excluded from Elms' February 28 inventory.

(b) Elms owns the goods once they are shipped on February 26. Include inventory of $480.

(c) Include $650 in inventory.

(d) Exclude the items from Elm's inventory. Title remains with the consignor.

(e) Title of the goods does not transfer to Elm's until March 2. Exclude this amount from the February 28 inventory.

(f) Title to the goods does not transfer to the customer until March 2. The $200 cost should be included in ending inventory.

PROBLEM 6-2B

(a) **COST OF GOODS AVAILABLE FOR SALE**

Date	Explanation	Units	Unit Cost	Total Cost
Oct. 1	Beginning Inventory	2,000	£7	£ 14,000
3	Purchase	3,000	8	24,000
9	Purchase	3,500	9	31,500
19	Purchase	3,000	10	30,000
25	Purchase	3,500	11	38,500
	Total	15,000		£138,000

(b) **FIFO**

(1) Ending Inventory

Date	Units	Unit Cost	Total Cost
Oct. 25	3,500	£11	£38,500
19	100	10	1,000
	3,600*		£39,500

(2) Cost of Goods Sold

Cost of goods available for sale	£138,000
Less: Ending inventory	39,500
Cost of goods sold	£ 98,500

*15,000 – 11,400 = 3,600

Proof of Cost of Goods Sold

Date	Units	Unit Cost	Total Cost
Oct. 1	2,000	£ 7	£14,000
3	3,000	8	24,000
9	3,500	9	31,500
19	2,900	10	29,000
	11,400		£98,500

PROBLEM 6-2B (Continued)

AVERAGE COST

(1) Ending Inventory

£138,000 ÷ 15,000 = £9.20

Units	Unit Cost	Total Cost
3,600	£9.20	£33,120

Proof of Cost of Goods Sold

11,400 units X £9.20 = £104,880

(2) Cost of Goods Sold

Cost of goods available for sale	£138,000
Less: Ending inventory	33,120
Cost of goods sold	£104,880

(c) 1. FIFO results in the highest inventory amount for the statement of financial position, £39,500.

2. Average-cost results in the highest cost of goods sold, £104,880.

PROBLEM 6-3B

(a) **COST OF GOODS AVAILABLE FOR SALE**

Date	Explanation	Units	Unit Cost	Total Cost
1/1	Beginning Inventory	150	$20	$ 3,000
3/15	Purchase	400	23	9,200
7/20	Purchase	250	24	6,000
9/4	Purchase	350	26	9,100
12/2	Purchase	100	29	2,900
	Total	1,250		$30,200

(b) **FIFO**

(1) Ending Inventory

Date	Units	Unit Cost	Total Cost
12/2	100	$29	$2,900
9/4	150	26	3,900
	250		$6,800

(2) Cost of Goods Sold

Cost of goods available for sale	$30,200
Less: Ending inventory	6,800
Cost of goods sold	$23,400

Proof of Cost of Goods Sold

Date	Units	Unit Cost	Total Cost
1/1	150	$20	$ 3,000
3/15	400	23	9,200
7/20	250	24	6,000
9/4	200	26	5,200
	1,000		$23,400

PROBLEM 6-3B (Continued)

AVERAGE COST

(1) Ending Inventory			(2) Cost of Goods Sold	
$30,200 ÷ 1,250 = $24.16			Cost of goods available for sale	$30,200
Units	Unit Cost	Total Cost	Less: Ending inventory	6,040
250	$24.16	$6,040	Cost of goods sold	$24,160

Proof of Cost of Goods Sold

1,000 units X $24.16 = $24,160

(c) 1. FIFO results in the highest inventory amount, $6,800, as shown in (b) above.

2. Average-cost produces the highest cost of goods sold, $24,160 as shown in (b) above.

PROBLEM 6-4B

(a)

MONER INC.
Condensed Income Statements
For the Year Ended December 31, 2011

	FIFO	Average-Cost
Sales	€747,000	€747,000
Cost of goods sold		
Beginning inventory	16,000	16,000
Cost of goods purchased	468,000	468,000
Cost of goods available for sale	484,000	484,000
Ending inventory	48,600[a]	43,992[b]
Cost of goods sold	435,400	440,008
Gross profit	311,600	306,992
Operating expenses	130,000	130,000
Income before income taxes	181,600	176,992
Income taxes (40%)	72,640	70,797
Net income	€108,960	€106,195

[a]18,000 X €2.70 = €48,600.
[b]€484,000 ÷ 198,000 units = €2.444/unit
18,000 X €2.444 = €43,992

(b) 1. The FIFO method produces the most meaningful inventory amount for the statement of financial position because the units are costed at the most recent purchase prices.

2. The FIFO method is most likely to approximate actual physical flow because the oldest goods are usually sold first to minimize spoilage and obsolescence.

3. There will be €1,843 additional cash available under average-cost because income taxes are €70,797 under average and €72,640 under FIFO.

PROBLEM 6-5B

(a) Cost of Goods Available for Sale

Date	Explanation	Units	Unit Cost	Total Cost
June 1	Beginning Inventory	40	$40	$ 1,600
June 4	Purchase	135	44	5,940
June 18	Purchase	55	46	2,530
June 18	Purchase return	(10)	46	(460)
June 28	Purchase	30	50	1,500
	Total	250		$11,110

Ending Inventory in Units:

Units available for sale	250
Sales (110 – 15 + 65)	160
Units remaining in ending inventory	90

Sales Revenue

Date	Units	Unit Price	Total Sales
June 10	110	$70	$ 7,700
11	(15)	70	(1,050)
25	65	75	4,875
	160		$11,525

(1) FIFO

(i) Ending Inventory

June 28	30 @ $50	$1,500
18	45 @ $46	2,070
4	15 @ $44	660
	90	$4,230

(ii) Cost of Goods Sold

Cost of goods available for sale	$11,110
Less: Ending inventory	4,230
Cost of goods sold	$ 6,880

(iii) Gross Profit

Sales revenue	$11,525
Cost of goods sold	6,880
Gross profit	$ 4,645

(iv) Gross Profit Rate

$$\frac{\text{Gross profit}}{\text{Net sales}} \quad \frac{\$\ 4,645}{\$11,525} = 40.3\%$$

PROBLEM 6-5B (Continued)

(2) Average-Cost

Weighted-average cost per unit: $\dfrac{\text{Cost of goods available for sale}}{\text{Units available for sale}}$

$$\frac{\$11{,}110}{250} = \$44.44$$

(i) Ending Inventory

90 units @$44.44	$4,000

(ii) Cost of Goods Sold

Cost of goods available for sale	$11,110
Less: Ending inventory	4,000
Cost of goods sold	$ 7,110

(iii) Gross Profit

Sales revenue	$11,525
Cost of goods sold	7,110
Gross profit	$ 4,415

(iv) Gross Profit Rate

$$\frac{\text{Gross profit}}{\text{Net sales}} \quad \frac{\$\ 4{,}415}{\$11{,}525} = 38.3\%$$

(b) In this period of rising prices, average-cost gives the highest cost of goods sold and the lowest gross profit. FIFO gives the lowest cost of goods sold and the highest gross profit.

PROBLEM 6-6B

(a)

MONDELLO INC.
Income Statement (partial)
For the Month Ended March 31, 2011

	(1) Specific Identification	(2) FIFO	(3) Average-Cost
Sales revenue[a]	$8,560	$8,560	$8,560
Beginning inventory	1,200	1,200	1,200
Purchases[b]	6,505	6,505	6,505
Cost of goods available for sale	7,705	7,705	7,705
Ending inventory[c]	2,735	2,936	2,660
Cost of goods sold	4,970	4,769	5,045
Gross profit	$3,590	$3,791	$3,515

[(a)](2,200 @ $1.05) + (5,000 @ $1.25)
[(b)](2,500 @ $ .65) + (4,000 @ $.72) + (2,500 @ $.80)
[(c)]Specific identification ending inventory consists of:

Beginning inventory	(2,000 liters – 1,100 – 450)	450 @ $.60	$ 270.00
March 3 purchase	(2,500 liters – 1,100 – 550)	850 @ $.65	552.50
March 10 purchase	(4,000 liters – 2,900)	1,100 @ $.72	792.00
March 20 purchase	(2,500 liters – 1,100)	1,400 @ $.80	1,120.00
		3,800 liters	$2,734.50

FIFO ending inventory consists of:

March 20 purchase	2,500 @ $.80	$2,000
March 10 purchase	1,300 @ $.72	936
	3,800 liters	$2,936

Average-cost ending inventory consists of: 3,800 liters @ $.700 = 2,660

$$\text{Weighted-average cost per unit: } \frac{\text{Cost of goods available for sale}}{\text{Units available for sale}}$$

$$\frac{\$7,705}{(2,000 + 2,500 + 4,000 + 2,500)} = \$.700/\text{liter}$$

PROBLEM 6-6B (Continued)

(b) Companies can choose a cost flow method that produces the highest possible cost of goods sold and lowest gross profit to justify price increases. In this example, average-cost produces the lowest gross profit and best support to increase selling prices.

PROBLEM 6-7B

(a)

WINTERTHUR CO.
Condensed Income Statement
For the Year Ended December 31, 2011

	FIFO	Average-Cost
Sales	CHF700,000	CHF700,000
Cost of goods sold		
Beginning inventory	45,000	45,000
Cost of goods purchased	532,000	532,000
Cost of goods available for sale	577,000	577,000
Ending inventory	168,000[a]	157,350[b]
Cost of goods sold	409,000	419,650
Gross profit	291,000	280,350
Operating expenses	140,000	140,000
Income before income taxes	151,000	140,350
Income tax expense (30%)	45,300	42,105
Net income	CHF105,700	CHF 98,245

[a](30,000 @ CHF5.60) = CHF168,000.
[b]CHF577,000 ÷ 110,000 units = CHF5.245 per unit; 30,000 @ CHF5.245 = CHF157,350.

(b) Answers to questions:

1. The FIFO method produces the most meaningful inventory amount for the statement of financial position because the units are costed at the most recent purchase prices.

2. The FIFO method is most likely to approximate actual physical flow because the oldest goods are usually sold first to minimize spoilage and obsolescence.

3. There will be CHF3,195 additional cash available under average-cost because income taxes are CHF42,105 under average and CHF45,300 under FIFO.

*PROBLEM 6-8B

(a)

Sales:

January 8	110 units @ $28	$3,080
January 10 (return)	(10 units @ $28)	(280)
January 20	80 units @ $32	2,560
	180 units	$5,360

(1) FIFO

Date	Purchases	Cost of Goods Sold		Balance	
January 1				(100 @ $15)	$1,500
January 5	(150 @ $18) $2,700			(100 @ $15) (150 @ $18)	$4,200
January 8		(100 @ $15) (10@ $18)	$1,680	(140 @ $18)	$2,520
January 10		(–10 @ $18)	($ 180)	(150 @ $18)	$2,700
January 15	(55 @ $20) $1,100			(150 @ $18) (55 @ $20)	$3,800
January 16	(–5 @ $20)($ 100)			(150 @ $18) (50 @ $20)	$3,700
January 20		(80 @ $18)	$1,440	(70 @ $18) (50 @ $20)	$2,260
January 25	(30 @ $22) $ 660			(70 @ $18) (50 @ $20) (30 @ $22)	$2,920
			$2,940		

(i) Cost of goods sold = $2,940. (ii) Ending inventory = $2,920. (iii) Gross profit = $5,360 – $2,940 = $2,420.

*PROBLEM 6-8B (Continued)

(2) Moving-Average Cost

Date	Purchases		Cost of Goods Sold		Balance	
January 1					(100 @ $15)	$1,500
January 5	(150 @ $18)	$2,700			(250 @ $16.80)[a]	$4,200
January 8			(110 @ $16.80)	$1,848	(140 @ $16.80)	$2,352
January 10			(–10 @ $16.80)	($ 168)	(150 @ $16.80)	$2,520
January 15	(55 @ $20)	$1,100			(205 @ $17.658)[b]	$3,620
January 16	(–5 @ $20)	($ 100)			(200 @ $17.60)[c]	$3,520
January 20			(80 @ $17.60)	$1,408	(120 @ $17.60)	$2,112
January 25	(30 @ $22)	$ 660			(150 @ $18.48)[d]	$2,772
				$3,088		

*rounded

[a]$4,200 ÷ 250 = $16.80
[b]$3,620 ÷ 205 = $17.659
[c]$3,520 ÷ 200 = $17.60
[d]$2,772 ÷ 150 = $18.48

(i) Cost of goods sold = $3,088. (ii) Ending inventory = $2,772. (iii) Gross profit = $5,360 – $3,088 = $2,272.

(b)

Gross profit:	FIFO	Moving-Average-Cost
Sales	$5,360	$5,360
Cost of goods sold	2,940	3,088
Gross profit	$2,420	$2,272
Ending inventory	$2,920	$2,772

In a period of rising costs, the moving-average cost flow assumption results in the highest cost of goods sold and lowest gross profit. FIFO gives the lowest cost of goods sold and highest gross profit.

On the statement of financial position, FIFO gives the highest ending inventory (representing the most current costs); and moving-average cost results in the lowest ending inventory.

*PROBLEM 6-9B

(a)

(1) FIFO

Date	Purchases		Cost of Goods Sold		Balance	
July 1	(5 @ HK$120)	HK$ 600			(5 @ HK$120)	HK$ 600
6			(4 @ HK$120)	HK$480	(1 @ HK$120)	HK$ 120
11	(7 @ HK$136)	HK$ 952			(1 @ HK$120) (7 @ HK$136)	HK$1,072
14			(1 @ HK$120) (2 @ HK$136)	HK$392	(5 @ HK$136)	HK$ 680
21	(8 @ HK$147)	HK$1,176			(5 @ HK$136) (8 @ HK$147)	HK$1,856
27			(5 @ HK$136) (1 @ HK$147)	HK$827	(7 @ HK$147)	HK$1,029

(2) MOVING-AVERAGE COST

Date	Purchases		Cost of Goods Sold		Balance	
July 1	(5 @ HK$120)	HK$ 600			(5 @ HK$120)	HK$ 600
6			(4 @ HK$120)	HK$480	(1 @ HK$120)	HK$ 120
11	(7 @ HK$136)	HK$ 952			(8 @ HK$134)*	HK$1,072
14			(3 @ HK$134)	HK$402	(5 @ HK$134)	HK$ 670
21	(8 @ HK$147)	HK$1,176			(13 @ HK$142)**	HK$1,846
27			(6 @ HK$142)	HK$852	(7 @ HK$142)	HK$ 994

*HK$1,072 ÷ 8 = HK$134

**HK$1,846 ÷ 13 = HK$142

(b) The highest ending inventory is HK$1,029 under the FIFO method.

*PROBLEM 6-10B

(a)

			November
Net sales			$600,000
Cost of goods sold			
Beginning inventory		$ 32,000	
Purchases	$377,000		
Less: Purchase returns and allowances	13,300		
Purchase discounts	8,500		
Add: Freight-in	8,800		
Cost of goods purchased		364,000	
Cost of goods available for sale		396,000	
Ending inventory		36,000	
Cost of goods sold			360,000
Gross profit			$240,000

$$\text{Gross profit rate} = \frac{\$240,000}{\$600,000} = 40\%$$

(b)

Net sales			$700,000
Less: Estimated gross profit (40% X $700,000)			280,000
Estimated cost of goods sold			$420,000
Beginning inventory			$ 36,000
Purchases		$424,000	
Less: Purchase returns and allowances	$14,900		
Purchase discounts	9,500	24,400	
Net purchases		399,600	
Freight-in		9,900	
Cost of goods purchased			409,500
Cost of goods available for sale			445,500
Less: Estimated cost of goods sold			420,000
Estimated inventory lost in fire			$ 25,500

*PROBLEM 6-11B

(a)

	Hardcovers		Paperbacks	
	Cost	Retail	Cost	Retail
Beginning inventory	€ 420,000	€ 700,000	€ 280,000	€ 360,000
Purchases	2,135,000	3,200,000	1,155,000	1,540,000
Freight-in	24,000		12,000	
Purchase discounts	(44,000)		(22,000)	
Goods available for sale	€2,535,000	3,900,000	€1,425,000	1,900,000
Net sales		3,100,000		1,570,000
Ending inventory at retail		€ 800,000		€ 330,000

Cost-to-retail ratio:

Hardcovers—€2,535,000 ÷ €3,900,000 = 65%.
Paperbacks—€1,425,000 ÷ €1,900,000 = 75%.

Estimated ending inventory at cost:

€800,000 X 65% = €520,000—Hardcovers.
€330,000 X 75% = €247,500—Paperbacks.

(b) Hardcovers—€790,000 X 65% = €513,500.
Paperbacks—€335,000 X 75% = €251,250.

*PROBLEM 6-12B

(a) Cost of Goods Available for Sale

Date	Explanation	Units	Unit Cost	Total Cost
June 1	Beginning Inventory	40	$40	$ 1,600
June 4	Purchase	135	44	5,940
June 18	Purchase	55	46	2,530
June 18	Purchase return	(10)	46	(460)
June 28	Purchase	30	50	1,500
	Total	250		$11,110

Ending Inventory in Units:

Units available for sale	250
Sales (110 – 15 + 65)	160
Units remaining in ending inventory	90

Ending Inventory

June 1	40	@	$40	$1,600
4	50	@	44	2,200
	90			$3,800

BYP 6-1 FINANCIAL REPORTING PROBLEM

(a)

Inventory Amounts	
December 31, 2008	December 31, 2007
£767 million	£821 million

(b) Dollar amount of inventory change – £54 million decrease

(£821 million – £767 million)

Percent change in inventories from 2007 to 2008

$$6.58\% \quad \frac{(£821 \text{ million} - £767 \text{ million})}{£821 \text{ million}}$$

Inventory as a percent of current assets

December 31, 2008 – 29.11% (£767 million ÷ £2,635 million)

(c) In Cadbury's Note 1 "Nature of operations and accounting policies Cadbury indicates that it values its inventory at the lower of average cost or estimated realizable value. As a result, it uses the average-cost method as its cost flow assumption.

(d) In Cadbury's Note 3 "Trading costs", it indicates that cost of sales is £2,870 million. Revenue is £5,384 and therefore the ratio of cost to sales is 53.31% (£2,870 million ÷ £5,384).

BYP 6-2 COMPARATIVE ANALYSIS PROBLEM

(a) 1.

	Inventory Turnover	Computation
Cadbury	3.6 times	$\dfrac{£2,870 \text{ million}}{\dfrac{(£821 \text{ million} + £767)}{2}}$
Nestlé	5.1 times	$\dfrac{\text{CHF}47,339 \text{ million}}{\dfrac{(\text{CHF}9,272 \text{ million} + \text{CHF}9,342}{2}}$

2.

	Days in Inventory	Computation
Cadbury	101 days	$\dfrac{365 \text{ days}}{3.6 \text{ times}}$
Nestlé	72 days	$\dfrac{365 \text{ days}}{5.1 \text{ times}}$

(b) Nestlé has a faster inventory turnover and as a result a lower number of days in inventory. As a result, it appears that Nestle is managing its inventory more effectively than Cadbury. It should be noted that Cadbury may be attempting to increase its inventory turnover as it decreased its inventory more than 6% from 2007 to 2008.

BYP 6-3 EXPLORING THE WEB

The following responses are based on the 2008 annual report:

(a) $1,235,000,000, as of July 26, 2008.

(b) $1,235,000,000 – $1,322,000,000 = $87,000,000 decrease.

(c) 67.4 percent ($833 ÷ $1,235).

(d) Lower of cost or market using standard cost, which approximates FIFO.

BYP 6-4 DECISION MAKING ACROSS THE ORGANIZATION

(a) 1.

Sales January 1–March 31		$180,000
Cash sales 4/1–4/10 ($18,500 X 40%)		7,400
Acknowledged credit sales 4/1–4/10		37,000
Sales made but unacknowledged		5,600
Sales as of April 10		$230,000

2.

Purchases January 1–March 31		$ 94,000
Cash purchases 4/1–4/10		4,200
Credit purchases 4/1–4/10	$12,400	
Less: Items in transit	1,600	10,800
Purchases as of April 10		$109,000

*(b)

	2010		2009
Net sales	$600,000		$480,000
Cost of goods sold			
Inventory, January 1	60,000		40,000
Cost of goods purchased	404,000		356,000
Cost of goods available for sale	464,000		396,000
Inventory, December 31	80,000		60,000
Cost of goods sold	384,000		336,000
Gross profit	$216,000		$144,000
Gross profit rate	36%		30%
Average gross profit rate		33%	

*(c)

Sales	$230,000
Less: Gross profit ($230,000 X 33%)	75,900
Cost of goods sold	$154,100
Inventory, January 1	$ 80,000
Purchases	109,000
Cost of goods available for sale	189,000
Cost of goods sold	154,100
Estimated inventory at time of fire	34,900
Less: Inventory salvaged	17,000
Estimated inventory loss	$ 17,900

BYP 6-5 COMMUNICATION ACTIVITY

MEMO

To: Janice Lemay, President
From: Student

Re: 2010 ending inventory error

As you know, 2010 ending inventory was overstated by $1 million. Of course, this error will cause 2010 net income to be incorrect because the ending inventory is used to compute 2010 cost of goods sold. Since the ending inventory is subtracted in the computation of cost of goods sold, an overstatement of ending inventory results in an understatement of cost of goods sold and therefore an overstatement of net income.

Unfortunately, unless corrected, this error will also affect 2011 net income. The 2010 ending inventory is also the 2011 beginning inventory. Therefore, 2011 beginning inventory is also overstated, which causes an overstatement of cost of goods sold and an understatement of 2011 net income.

BYP 6-6 ETHICS CASE

(a) The higher cost of the items ordered, received, and on hand at year-end will be included in cost of goods sold, thereby lowering current year's income and income taxes. If the purchase at year-end had been made in the next year, the next year's cost of goods sold would have absorbed the higher cost. Next year's income will be increased if unit purchases (next year) are less than unit sales (next year). This is because the lower costs carried from the earlier year as inventory will be charged to next year's cost of goods sold. Therefore, next year's income taxes will increase.

(b) No. The president would not have given the same directive because the purchase under FIFO would have had no effect on net income of the current year.

(c) The accountant has no grounds for not ordering the goods if the president insists. The purchase is legal and ethical.

CHAPTER 7

Fraud, Internal Control, and Cash

ASSIGNMENT CLASSIFICATION TABLE

Study Objectives	Questions	Brief Exercises	Do It!	Exercises	A Problems	B Problems
1. Define fraud and internal control.	1, 2, 3, 4	1, 2, 3				
2. Identify the principles of internal control activities.	5, 6, 7, 8, 9, 10, 11	4	1	1, 2, 3, 5, 6	1A, 6A	1B, 6B
3. Explain the applications of internal control principles to cash receipts.	6, 13, 14, 15	5, 6, 7	2	2, 5, 6	6A	1B, 6B
4. Explain the applications of internal control principles to cash disbursements.	16, 17, 18, 19	8		3, 4, 5, 6	1A, 6A	6B
5. Describe the operation of a petty cash fund.	21	9	3	7, 8	2A	2B
6. Indicate the control features of a bank account.	22	10				
7. Prepare a bank reconciliation.	20, 23, 24, 25	11, 12 13, 14	4	9, 10, 11, 12, 13	3A, 4A, 5A	3B, 4B, 5B, 6B
8. Explain the reporting of cash.	12, 26	15		14		

ASSIGNMENT CHARACTERISTICS TABLE

Problem Number	Description	Difficulty Level	Time Allotted (min.)
1A	Identify internal control principles over cash disbursements.	Simple	20–30
2A	Journalize and post petty cash fund transactions.	Simple	20–30
3A	Prepare a bank reconciliation and adjusting entries.	Simple	20–30
4A	Prepare a bank reconciliation and adjusting entries from detailed data.	Moderate	40–50
5A	Prepare a bank reconciliation and adjusting entries.	Moderate	30–40
6A	Identify internal control weaknesses in cash receipts and cash disbursements.	Complex	35–45
1B	Identify internal control weaknesses over cash receipts.	Simple	20–30
2B	Journalize and post petty cash fund transactions.	Simple	20–30
3B	Prepare a bank reconciliation and adjusting entries.	Simple	20–30
4B	Prepare a bank reconciliation and adjusting entries from detailed data.	Moderate	40–50
5B	Prepare a bank reconciliation and adjusting entries.	Moderate	30–40
6B	Prepare comprehensive bank reconciliation with theft and internal control deficiencies.	Complex	40–50

WEYGANDT IFRS 1E
CHAPTER 7
FRAUD, INTERNAL CONTROL, AND CASH

Number	SO	BT	Difficulty	Time (min.)
BE1	1	C	Simple	2–4
BE2	1	C	Simple	2–4
BE3	1	C	Simple	4–6
BE4	2	C	Simple	3–5
BE5	3	C	Simple	4–6
BE6	3	AP	Simple	4–6
BE7	3	AP	Simple	2–4
BE8	4	C	Simple	4–6
BE9	5	AP	Simple	4–6
BE10	6	C	Simple	2–4
BE11	7	C	Simple	3–5
BE12	7	C	Simple	3–5
BE13	7	AP	Simple	2–4
BE14	7	AP	Simple	2–4
BE15	8	C	Simple	2–4
DI1	2	C	Moderate	6–8
DI2	3	C	Simple	4–6
DI3	5	AP	Simple	4–6
DI4	7	C	Simple	2–4
EX1	2	C	Simple	8–10
EX2	2, 3	E	Moderate	8–10
EX3	2, 4	E	Moderate	8–10
EX4	4	E	Moderate	12–15
EX5	2–4	C	Simple	6–8
EX6	2–4	C	Simple	6–8
EX7	5	AP	Simple	8–10
EX8	5	AP	Simple	6–8
EX9	7	AN	Simple	8–10
EX10	7	AP	Simple	3–5

FRAUD, INTERNAL CONTROL, AND CASH (Continued)

Number	SO	BT	Difficulty	Time (min.)
EX11	7	AN	Simple	10–12
EX12	7	AN	Simple	12–15
EX13	7	AN	Moderate	10–12
EX14	8	C, AP	Simple	8–10
P1A	2, 4	C	Simple	20–30
P2A	5	AP	Simple	20–30
P3A	7	AN	Simple	20–30
P4A	7	AN	Moderate	40–50
P5A	7	AN	Moderate	30–40
P6A	2–4	E	Complex	35–45
P1B	2, 3	E	Simple	20–30
P2B	5	AP	Simple	20–30
P3B	7	AN	Simple	20–30
P4B	7	AN	Moderate	40–50
P5B	7	AN	Moderate	30–40
P6B	2–4, 7	E	Complex	40–50
BYP1	2, 8	C	Simple	10–15
BYP2	8	AN	Simple	8–12
BYP3	2, 7	E	Simple	10–15
BYP4	3	AN	Moderate	15–20
BYP5	3	E	Simple	10–15
BYP6	3	E	Simple	10–15

BLOOM'S TAXONOMY TABLE

Correlation Chart between Bloom's Taxonomy, Study Objectives and End-of-Chapter Exercises and Problems

Study Objective	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
1. Define fraud and internal control.		Q7-1, Q7-2, Q7-3, Q7-4, BE7-1, BE7-2, BE7-3				
2. Identify the principles of internal control activities.		Q7-5, Q7-6, Q7-7, Q7-8, Q7-9, Q7-10, Q7-11, BE7-4, DI7-1, E7-1, E7-5, E7-6, P7-1A				E7-2, E7-3, P7-1B, P7-6A, P7-6B
3. Explain the applications of internal control principles to cash receipts.		Q7-6, Q7-13, Q7-14, Q7-15, BE7-5, DI7-2, E7-5, E7-6	BE7-6, BE7-7			E7-2, P7-1B, P7-6A, P7-6B
4. Explain the applications of internal control principles to cash disbursements.	Q7-18, Q7-19	Q7-16, Q7-17, BE7-8, E7-5, E7-6, P7-1A				E7-3, E7-4, P7-6A, P7-6B
5. Describe the operation of a petty cash fund.		Q7-21	BE7-9, DI7-3, E7-7, E7-8, P7-2A, P7-2B			
6. Indicate the control features of a bank account.		Q7-22, BE7-10				
7. Prepare a bank reconciliation.	Q7-20, Q7-24	Q7-23, Q7-25, BE7-11, BE7-12, DI7-4	BE7-13, BE7-14, E7-10	E7-9, E7-11, E7-12, E7-13, P7-3A, P7-4A, P7-5A, P7-3B, P7-4B, P7-5B		P7-6B
8. Explain the reporting of cash.		Q7-26, BE7-15, E7-14	Q7-12, E7-14			
Broadening Your Perspective		Financial Reporting		Comparative Analysis Decision Making Across the Organization		Exploring the Web Communication Ethics Case

ANSWERS TO QUESTIONS

1. Fraud is a dishonest act by an employee that results in personal benefit to the employee at a cost to the employer. An example of fraud that might occur at a bank would be a computer operator embezzling funds by transferring a customer's deposits into another account.

2. The three main factors that contribute to employee fraud are opportunity, financial pressure, and rationalization. Opportunities that an employee can take advantage of occur when the workplace lacks sufficient controls to deter and detect fraud. Financial pressure occurs when employees want to lead a lifestyle that they cannot afford on their current salary. Rationalization involves employees justifying fraud because they believe they are underpaid while their employer is making lots of money.

3. The five components of a good internal control system are: (1) A control environment, (2) Risk assessment, (3) Control activities, (4) Information and communication, and (5) Monitoring.

4. Disagree. Internal control is also concerned with the safeguarding of company assets from employee theft, robbery, and unauthorized use.

5. The principles of internal control are: (a) establishment of responsibility, (b) segregation of duties, (c) documentation procedures, (d) physical controls, (e) independent internal verification, and (f) human resource controls.

6. This is a violation of the internal control principle of establishing responsibility. In this case, each sales clerk should have a separate cash register or cash register drawer.

7. The two applications of segregation of duties are:
   (1) Different individuals should be responsible for related activities.
   (2) Responsibility for the record keeping for an asset should be separate from the physical custody of that asset.

8. Documentation procedures contribute to good internal control by providing evidence that transactions and events have occurred and, when signatures (or initials) are added, the documents establish responsibility for the transactions. The prompt transmittal of documents to accounting contributes to recording transactions in the proper period, and the prenumbering of documents helps to ensure that a transaction is not recorded more than once or not at all.

9. Safes, vaults, and locked warehouses contribute to the safeguarding of company assets. Cash registers and time clocks contribute to the accuracy and reliability of the accounting records, and electronic burglary systems and sensors help to safeguard assets.

10. (a) Independent internal verification involves the review of data prepared by employees.
    (b) Maximum benefit is obtained from independent internal verification when:
        (1) The verification is made periodically or on a surprise basis.
        (2) The verification is done by an employee who is independent of the personnel responsible for the information.
        (3) Discrepancies and exceptions are reported to a management level that can take appropriate corrective action.

11. (a) The concept of reasonable assurance rests on the premise that the costs of establishing control procedures should not exceed their expected benefit.
(b) The human element is an important factor in a system of internal control. A good system can become ineffective through employee fatigue, carelessness, or indifference. Moreover, internal control may become ineffective as a result of collusion.

12. Cash should be reported at $20,850 ($8,000 + $850 + $12,000).

13. Daily cash counts pertain primarily to the principles of segregation of duties, documentation procedures, and independent internal verification. Daily cash counts also involve the establishment of responsibility for performing the counts.

14. Cash registers are readily visible to the customer. Thus, they prevent the sales clerk from ringing up a lower amount and pocketing the difference. In addition, the customer receives an itemized receipt, and the cash register tape is locked into the register for further verification, providing documentation and enabling independent internal verification.

15. Two mail clerks contribute to a more accurate listing of mail receipts and to the endorsement of all checks "For Deposit Only." In addition, two clerks reduce the likelihood of mail receipts being diverted to personal use.

16. Payment by check contributes to effective internal control over cash disbursements. However, effective control is also possible when small payments are made from petty cash.

17. The procedure and related principle are:

Procedure	Principle
(1) Treasurer signs checks.	* Establishment of responsibility.
(2) Checks imprinted by a machine in indelible ink.	* Physical controls.
(3) Comparing check with approved invoice before signing.	* Independent internal verification.

18. Physical controls apply to cash disbursements when: (a) blank checks are stored in a safe, and access to the safe is restricted to authorized personnel, and (b) a checkwriting machine and indelible ink are used to imprint amounts on checks. Documentation controls apply when the company uses prenumbered checks and accounts for them in sequence, and requires employees to use corporate credit cards for reimbursable expenses.

19. (a) A voucher system is a network of approvals by authorized individuals acting independently to ensure that all disbursements by check are proper.
(b) The internal control principles applicable to a voucher system are: (1) establishment of responsibility, (2) segregation of duties, (3) independent internal verification, and (4) documentation procedures.

20. Electronic funds transfer is a cash disbursement system that uses wire, telephone, or computers to transfer cash from one location to another.

21. The activities in a petty cash system and the related principles are:

(a)

(1)	Establishing the fund.	*	Establishment of responsibility for custody of fund.
(2)	Making payments from the fund.	*	Documentation procedures because the custodian must use a prenumbered petty cash receipt.
(3)	Replenishing the fund.	*	Independent internal verification because the request for replenishment must be approved before the check is written.

(b) Journal entries are required for a petty cash fund when it is established and replenished. Entries are also required when the size of the fund is increased or decreased.

22. Yes. A bank contributes significantly to internal control over cash because it: (1) safeguards cash on deposit, (2) minimizes the amount of currency that must be kept on hand, and (3) provides a double record of all bank transactions.

23. The lack of agreement between the balances may be due to either:
(1) Time lags—a check written in July does not clear the bank until August.
(2) Errors—a check for $110 is recorded by the depositor at $101.

24. The four steps are: (1) determine deposits in transit, (2) determine outstanding checks, (3) discover any errors made, and (4) trace bank memoranda.

25. (a) An NSF check occurs when the checkwriter's bank balance is less than the amount of the check.
(b) In a bank reconciliation, a customer's NSF check is deducted from the balance per books.
(c) An NSF check results in an adjusting entry in the company's books, as a debit to Accounts Receivable and a credit to Cash.

26. (a) Yes. Cash equivalents are highly liquid investments that can be converted into a specific amount of cash with maturities of three months or less when purchased. Cash equivalents may be reported with cash in the current assets section of the statement of financial position.
(b) Cash restricted for a special purpose should be reported as a current or noncurrent asset depending on when the cash is expected to be used.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 7-1

1. Financial Pressure
2. Rationalization
3. Financial Pressure
4. Opportunity

BRIEF EXERCISE 7-2

1. True.
2. True.
3. False. Fear is not an element of the fraud triangle. The third element is rationalization.

BRIEF EXERCISE 7-3

The purposes of internal control are to:

1. Safeguard a company's assets from employee theft, robbery, and unauthorized use. An application for Ready Parking is the use of a cash register to safeguard assets.

2. Enhance the accuracy and reliability of a company's accounting records by reducing the risk of errors (unintentional mistakes) and irregularities (intentional mistakes and misrepresentations) in the accounting process. An application for Ready Parking is preparation of a bank reconciliation.

3. Increase efficiency of operations.

4. Ensure compliance with laws and regulations.

All of these purposes are important to the success of any business endeavor.

BRIEF EXERCISE 7-4

1. Segregation of duties.
2. Independent internal verification.
3. Documentation procedures.

BRIEF EXERCISE 7-5

1. Physical controls.
2. Human resource controls.
3. Independent internal verification.
4. Segregation of duties.
5. Establishment of responsibility.

BRIEF EXERCISE 7-6

(a)	Cash	6,840.75	
	Cash Over and Short	50.75	
	Sales Revenue		6,891.50
(b)	Cash	6,919.82	
	Cash Over and Short		28.32
	Sales Revenue		6,891.50

BRIEF EXERCISE 7-7

Cash ($1,125.74 – $150.00)	975.74	
Cash Over and Short	15.09	
Sales Revenue		990.83

BRIEF EXERCISE 7-8

1. Documentation procedures.
2. Independent internal verification.
3. Physical controls.
4. Establishment of responsibility.
5. Segregation of duties.

BRIEF EXERCISE 7-9

Mar. 20	Postage Expense	520	
	Freight-out	260	
	Travel Expense	100	
	Cash Over and Short	50	
	Cash		930

BRIEF EXERCISE 7-10

1. A <u>check</u> provides documentary evidence of the payment of a specified sum of money to a designated payee.

2. A <u>bank statement</u> provides a double record of a depositor's bank transactions. It also is used in making periodic independent bank reconciliations.

BRIEF EXERCISE 7-11

1. Outstanding checks—deducted from cash balance per bank.
2. Bank service charge—deducted from cash balance per books.
3. Collection of note by bank—added to cash balance per books.
4. Deposits in transit—added to cash balance per bank.

BRIEF EXERCISE 7-12

(a) The reconciling items per the books, items (2) and (3) above, will require adjustment on the books of the depositor.

(b) The other reconciling items, deposits in transit and outstanding checks, do not require adjustment by the bank. When these items reach the bank, the bank balance will automatically adjust itself.

BRIEF EXERCISE 7-13

Cash balance per bank	$7,420
Add: Deposits in transit	1,120
	8,540
Less: Outstanding checks	762
Adjusted cash balance per bank	$7,778

BRIEF EXERCISE 7-14

Cash balance per books	€8,500
Add: Interest earned	40
	8,540
Less: Charge for printing company checks	35
Adjusted cash balance per books	€8,505

BRIEF EXERCISE 7-15

Quirk Company should report Cash in Bank and Payroll Bank account as current assets. Plant Expansion Fund Cash should be reported as a noncurrent asset, assuming the fund is not expected to be used during the next year.

SOLUTIONS FOR DO IT! REVIEW EXERCISES

DO IT! 7-1

1. Violates the control activity of *documentation procedures*. Source documents should be promptly forwarded to the accounting department so accounting entries can be made. This control activity helps to ensure timely recording of sales transactions and contributes directly to the accuracy and reliability of the accounting records.

DO IT! 7-1 (Continued)

2. **Violates the control activity of *segregation of duties*. Different individuals should be responsible for related activities, such as these three related purchasing activities. Many abuses could occur: placing orders with friends and getting kickbacks; performing cursory counts and inspections of delivered goods; approving fictitious invoices for payment.**

3. **Violates the control activity of *establishment of responsibility*. Dick's would be unable to determine who was responsible for a cash shortage; this lapse could even encourage employee theft.**

DO IT! 7-2

All mail receipts should be opened in the presence of two mail clerks. Those mail clerks should immediately stamp each check "For Deposit Only." The mail clerks should prepare, in duplicate, a list of the checks received each day. The checks and prelist should be sent on to the cashier's department each day, and the cashier should deposit the checks daily. The duplicate prelist should be sent to the treasurer's department and used to confirm that all receipts were deposited and recorded.

DO IT! 7-3

Aug.	1	Petty Cash	100	
		Cash		100
	30	Postage Expense	31	
		Office Supplies	42	
		Miscellaneous Expense	16	
		Cash Over and Short	2	
		Cash (£100 – £9)		91

DO IT! 7-4

Linus should treat the reconciling items as follows:

1. **Outstanding checks: Deduct from balance per bank.**
2. **A deposit in transit: Add to balance per bank.**
3. **The bank charged to our account a check written by another company: Add to balance per bank.**
4. **A debit memorandum for a bank service charge: Deduct from balance per books.**

SOLUTIONS TO EXERCISES

EXERCISE 7-1

1. Establishment of responsibility. The counter clerk is responsible for handling cash. Other employees are responsible for making the pizzas.

2. Segregation of duties. Employees who make the pizzas do not handle cash.

3. Documentation procedures. The counter clerk uses your order invoice (ticket) in registering the sale on the cash register. The cash register produces a tape of all sales.

4. Physical controls. A cash register is used to record the sale.

5. Independent internal verification. The counter clerk, in handling the pizza, compares the size of the pizza with the size indicated on the order.

6. Human resource controls. No visible application possible.

EXERCISE 7-2

	(a)		(b)
Procedure	Weakness	Principle	Recommended Change
1.	Cash is not adequately protected from theft.	Physical controls.	Cash should be stored in a safe until it is deposited in bank.
2.	Inability to establish responsibility for cash with a specific clerk.	Establishment of responsibility.	There should be separate cash drawers and register codes for each clerk.

EXERCISE 7-2 (Continued)

	(a)		(b)
Procedure	Weakness	Principle	Recommended Change
3.	The accountant should not handle cash.	Segregation of duties.	The cashier's department should make the deposits.
4.	Cash is not independently counted.	Independent internal verification.	A cashier office supervisor should count cash.
5.	Cashiers are not bonded.	Human resource controls.	All cashiers should be bonded.

EXERCISE 7-3

	(a)		(b)
Procedure	Weakness	Principle	Recommended Change
1.	The bank reconciliation is not independently prepared.	Independent internal verification.	Someone with no other cash responsibilities should prepare the bank reconciliation.
2.	The approval and payment of bills is done by the same individual.	Segregation of duties.	The store manager should approve bills for payment and the treasurer should sign and issue checks.
3.	Checks are not stored in a secure area.	Physical controls.	Checks should be stored in a safe or locked file drawer.

EXERCISE 7-3 (Continued)

	(a)		(b)
Procedure	Weakness	Principle	Recommended Change
4.	After payment, bills are simply filed in a folder.	Documentation procedures.	Bills should be stamped paid before being placed in the folder.
5.	Checks are not prenumbered.	Documentation procedures.	Checks should be prenumbered and subsequently accounted for.

EXERCISE 7-4

(a) Weaknesses	(b) Suggested Improvement
1. Checks are not prenumbered.	Use prenumbered checks.
2. The purchasing agent signs checks.	Only the treasurer's department personnel should sign checks.
3. Unissued checks are stored in an unlocked file cabinet.	Unissued checks should be stored in a locked file cabinet with access restricted to authorized personnel.
4. After payment, bills are simply filed in a folder.	Bills should be stamped PAID before being placed in the folder.
5. After payment, the invoice is filed.	The invoice should be stamped PAID.
6. The purchasing agent records payments in cash disburse-ments journal.	Only accounting department personnel should record cash disbursements.

EXERCISE 7-4 (Continued)

(a) Weaknesses	(b) Suggested Improvement
7. The treasurer records the checks in the cash disbursements journal.	Same as answer to No. 6 above.
8. The treasurer reconciles the bank statement.	An internal auditor should reconcile the bank statement.

(b) To: Treasurer, Hutchingson Company

From: Accounting Student

I have reviewed your cash disbursements system and suggest that you make the following improvements:

1. Hutchingson Company should use prenumbered checks. These should be stored in a locked file cabinet or safe with access restricted to authorized personnel.

2. The purchasing department should approve bills for payment. The treasurer's department should prepare and sign the checks. The invoices should be stamped paid so that they cannot be paid twice.

3. Only the accounting department personnel should record cash disbursements.

4. An internal auditor should reconcile the bank statement.

If you have any questions about implementing these suggestions, please contact me.

EXERCISE 7-5

Procedure	IC good or weak?	Related internal control principle
1.	Weak	Establishment of Responsibility
2.	Good	Independent Internal Verification
3.	Weak	Segregation of Duties
4.	Good	Segregation of Duties
5.	Weak	Documentation Procedures

EXERCISE 7-6

Procedure	IC good or weak?	Related internal control principle
1.	Good	Human Resource Controls
2.	Weak	Establishment of Responsibility
3.	Weak	Segregation of Duties
4.	Good	Independent Internal Verification
5.	Good	Physical Controls

EXERCISE 7-7

May 1	Petty Cash	100.00	
	Cash		100.00
June 1	Delivery Expense	31.25	
	Postage Expense	39.00	
	Miscellaneous Expense	25.00	
	Cash Over and Short	2.00	
	Cash		97.25
July 1	Delivery Expense	21.00	
	Entertainment Expense	51.00	
	Miscellaneous Expense	24.75	
	Cash		96.75
July 10	Petty Cash	50.00	
	Cash		50.00

EXERCISE 7-8

Mar. 1	Petty Cash		100	
		Cash		100
15	Postage Expense		39	
	Freight-out		21	
	Miscellaneous Expense		11	
	Travel Expense		24	
	Cash Over and Short		2	
		Cash		97
20	Petty Cash		50	
		Cash		50

EXERCISE 7-9

(a)

Cash balance per bank statement		CHF3,560.20
Add: Deposits in transit		530.00
		4,090.20
Less: Outstanding checks		930.00
Adjusted cash balance per bank		CHF3,160.20
Cash balance per books		CHF3,875.20
Less: NSF check	CHF690.00	
Bank service charge	25.00	715.00
Adjusted cash balance per books		CHF3,160.20

(b)

Accounts Receivable	690.00	
Cash		690.00
Miscellaneous Expense	25.00	
Cash		25.00

EXERCISE 7-10

The outstanding checks are as follows:

No.		Amount
255		$ 820
260		890
264		560
	Total	$2,270

EXERCISE 7-11

(a)

TERESINA VIDEO COMPANY
Bank Reconciliation
July 31

Cash balance per bank statement	R$7,263
Add: Deposits in transit	1,500
	8,763
Less: Outstanding checks	591
Adjusted cash balance per bank	R$8,172
Cash balance per books	R$7,284
Add: Collection of note receivable (R$900 plus accrued interest R$36, less collection fee R$20)	916
	8,200
Less: Bank service charge	28
Adjusted cash balance per books	R$8,172

(b)

Date	Account	Debit	Credit
July 31	Cash	916	
	Miscellaneous Expense	20	
	Notes Receivable		900
	Interest Revenue		36
31	Miscellaneous Expense	28	
	Cash		28

EXERCISE 7-12

(a)

ROBERTSON COMPANY
Bank Reconciliation
September 30

Cash balance per bank statement		$16,422
Add: Deposits in transit		4,450
		20,872
Less: Outstanding checks		2,383
Adjusted cash balance per bank		$18,489
Cash balance per books		$17,404
Add: Collection of note receivable ($1,500 + $30)	$ 1,530	
Interest earned	45	1,575
		18,979
Less: NSF check	425	
Safety deposit box rent	65	490
Adjusted cash balance per books		$18,489

(b)

Sept. 30	Cash	1,530	
	Notes Receivable		1,500
	Interest Revenue		30
30	Cash	45	
	Interest Revenue		45
30	Accounts Receivable—J. E. Hoover	425	
	Cash		425
30	Miscellaneous Expense	65	
	Cash		65

EXERCISE 7-13

(a) Deposits in transit:

Deposits per books in July		€15,750
Less: Deposits per bank in July	€15,600	
Deposits in transit, June 30	(720)	
July receipts deposited in July		14,880
Deposits in transit, July 31		€ 870

EXERCISE 7-13 (Continued)

(b) Outstanding checks:

Checks per books in July		€17,200
Less: Checks clearing bank in July	€16,400	
Outstanding checks, June 30	(680)	
July checks cleared in July		15,720
Outstanding checks, July 31		€ 1,480

(c) Deposits in transit:

Deposits per bank statement in September	€26,700
Add: Deposits in transit, September 30	2,100
Total deposits to be accounted for	28,800
Less: Deposits per books	25,400
Deposits in transit, August 31	€ 3,400

(d) Outstanding checks:

Checks clearing bank in September	€25,000
Add: Outstanding checks, September 30	2,100
Total checks to be accounted for	27,100
Less: Cash disbursements per books	23,700
Outstanding checks, August 31	€ 3,400

EXERCISE 7-14

(a) Cash and cash equivalents should be reported at $93,500.

Cash in bank	$47,000
Cash on hand	12,000
Petty cash	500
Highly liquid investments	34,000
	$93,500

(b) "Cash in plant expansion fund" should be reported as part of long-term investments (a noncurrent asset). "Receivables from customers" should be reported as accounts receivable under current assets. "Share investments" should also be reported under current assets.

(c) Lipkus should disclose in the financial statements the details about the compensating balances. These are generally minimum cash balances the bank requires the borrower to maintain. They are a restriction on the use of cash that may affect the company's liquidity.

SOLUTIONS TO PROBLEMS

PROBLEM 7-1A

Principles	Application to Cash Disbursements
Establishment of responsibility.	Only the treasurer and assistant treasurer are authorized to sign checks.
Segregation of duties.	Invoices must be approved by both the purchasing agent and the receiving department supervisor. Payment can only be made by the treasurer or assistant treasurer, and the check signers do not record the cash disbursement transactions.
Documentation procedures.	Checks are prenumbered. Following payment, invoices are stamped PAID.
Physical controls.	Blank checks are kept in a safe in the treasurer's office. Only the treasurer and assistant treasurer have access to the safe. A checkwriting machine is used in writing checks.
Independent internal verification.	The check signer compares the check with the approved invoice prior to issue. Bank and book balances are reconciled monthly by the assistant chief accountant.
Human resource controls.	All employees who handle or record cash are bonded.

PROBLEM 7-2A

(a)	July 1	Petty Cash	200.00	
		Cash		200.00
	15	Freight-out	94.00	
		Postage Expense	42.40	
		Entertainment Expense	46.60	
		Miscellaneous Expense	11.20	
		Cash Over and Short	1.80	
		Cash		196.00
	31	Freight-out	82.10	
		Charitable Contributions Expense	45.00	
		Postage Expense	25.50	
		Miscellaneous Expense	39.40	
		Cash		192.00
	Aug. 15	Freight-out	75.60	
		Entertainment Expense	43.00	
		Postage Expense	33.00	
		Miscellaneous Expense	37.00	
		Cash Over and Short		1.60
		Cash		187.00
	16	Petty Cash	100.00	
		Cash		100.00
	31	Postage Expense	140.00	
		Travel Expense	95.60	
		Freight-out	47.10	
		Cash Over and Short	1.30	
		Cash		284.00

(b)

Petty Cash

Date	Explanation	Ref.	Debit	Credit	Balance
July 1		CP	200		200
Aug. 16		CP	100		300

PROBLEM 7-2A (Continued)

(c) The internal control features of a petty cash fund include:

1. **A custodian is responsible for the fund.**

2. **A prenumbered petty cash receipt signed by the custodian and the individual receiving payment is required for each payment from the fund.**

3. **The treasurer's office examines all payments and stamps supporting documents to indicate they were paid when the fund is replenished.**

4. **Surprise counts can be made at any time to determine whether the fund is intact.**

PROBLEM 7-3A

(a)

JAMES LOGAN COMPANY
Bank Reconciliation
May 31, 2011

Cash balance per bank statement		£6,404.60
Add: Deposit in transit	£1,916.15	
Bank error—Bridgetown check	800.00	2,716.15
		9,120.75
Less: Outstanding checks		576.25
Adjusted cash balance per bank		£8,544.50
Cash balance per books		£6,781.50
Add: Collection of note receivable (£2,500 note plus £80 interest less £20 fee)		2,560.00
		9,341.50
Less: NSF check	£ 680.00	
Error in May 12 deposit (£886.15 – £836.15)	50.00	
Error in recording check No. 1181	27.00*	
Check printing charge	40.00	797.00
Adjusted cash balance per books		£8,544.50

*£685 – £658

(b)

Date	Account	Debit	Credit
May 31	Cash	2,560	
	Miscellaneous Expense	20	
	Notes Receivable		2,500
	Interest Revenue		80
31	Accounts Receivable—S. Grifton	680	
	Cash		680
31	Sales	50	
	Cash		50
31	Accounts Payable—B. Trest	27	
	Cash		27
31	Miscellaneous Expense	40	
	Cash		40

PROBLEM 7-4A

(a)

BACKHAUS COMPANY
Bank Reconciliation
December 31, 2011

Cash balance per bank statement		$20,154.30
Add: Deposits in transit		1,690.40
		21,844.70
Less: Outstanding checks		
No. 3470	$ 720.10	
No. 3474	1,050.00	
No. 3478	621.30	
No. 3481	807.40	
No. 3484	798.00	
No. 3486	1,889.50	5,886.30
Adjusted cash balance per bank		$15,958.40
Cash balance per books		$12,485.20
Add: Note collected by bank ($4,000 note plus $160 interest less $15 fee)		4,145.00
		16,630.20
Less: NSF check	$ 572.80	
Error in recording check No. 3485	90.00*	
Error in 12-21 deposit ($2,954 – $2,945)	9.00	671.80
Adjusted cash balance per books		$15,958.40

*$540.80 – $450.80

(b)

Dec. 31	Cash	4,145.00	
	Miscellaneous Expense	15.00	
	Notes Receivable		4,000.00
	Interest Revenue		160.00
31	Accounts Receivable—D. Chagnon	572.80	
	Cash		572.80
31	Accounts Payable	90.00	
	Cash		90.00
31	Accounts Receivable	9.00	
	Cash		9.00

PROBLEM 7-5A

(a)

HAVERMAN COMPANY
Bank Reconciliation
July 31, 2011

Cash balance per bank statement		€24,514
Add: Deposits in transit (1)		9,400
		33,914
Less: Outstanding checks (2)	€ 8,460	
Bank error (€255 – €155)	100	8,560
Adjusted cash balance per bank		€25,354
Cash balance per books		€21,850
Add: Collection of note receivable by bank (€3,400 note plus €70 interest)	€ 3,470	
Book error (€320 – €230)	90	3,560
		25,410
Less: Check printing charge		56
Adjusted cash balance per books		€25,354

(1) July receipts per books			€81,400
July deposits per bank		€79,000	
Less: Deposits in transit, June 30		7,000	72,000
Deposits in transit, July 31			€ 9,400
(2) Disbursements per books in July			€77,150
Less: Book error			90
Total disbursements to be accounted for			77,060
Checks clearing bank in July		€74,700	
Add: Bank error	€ 100		
Less: June 30 outstanding checks	6,200	6,100	68,600
Outstanding checks, July 31			€ 8,460

PROBLEM 7-5A (Continued)

(b)	July 31	Cash	3,470	
		Notes Receivable		3,400
		Interest Revenue		70
	31	Cash	90	
		Accounts Payable		90
	31	Miscellaneous Expense	56	
		Cash		56

PROBLEM 7-6A

Tom has created a situation that leaves many opportunities for undetected theft. Here is a list of some of the deficiencies in internal control. You may find others.

1. **Documentation procedures. The tickets were unnumbered. By numbering the tickets, the students could have been held more accountable for the tickets. See number 3 below.**

2. **Physical controls and establishment of responsibility. The tickets were left in an unlocked box on his desk. Instead, Tom should have assigned control of the tickets to one individual, in a locked box which that student alone had control over.**

3. **Documentation procedures. No record was kept of which students took tickets to sell or how many they took. In combination with items 1 and 2 above, the student assigned control over the tickets should have kept a record of which tickets were issued to each student for resale. (Note: This problem could have been largely avoided if the tickets had only been sold at the door on the day of the dance.)**

4. **Documentation procedures. There was no control over unsold tickets. This deficiency made it possible for students to sell the tickets, keep the cash, and tell Tom that they had disposed of the unsold tickets. Instead, students should have been required to return the unsold tickets to the student maintaining control over tickets, and the cash to Tom. In each case, the students should have been issued a receipt for the cash they turned in and the tickets they returned.**

5. **Establishment of responsibility. Inadequate control over the cash box. In effect, it was operated like a petty cash fund, but too many people had the key. Instead, Tom should have had the key and disbursed funds when necessary for purchases.**

6. **Documentation procedures. Instead of receipts, students simply wrote notes saying how they used the funds. Instead, it should have been required that they provided a valid receipt.**

PROBLEM 7-6A (Continued)

7. **Segregation of duties. Luke Gilmor counted the funds, made out the deposit slip, and took the funds to the bank. This made it possible for Luke Gilmor to take some of the money and deposit the rest since there was no external check on his work. Tom should have counted the funds, with someone observing him. Then he could have made out the deposit slip and had Luke Gilmor deposit the funds.**

8. **Documentation procedures. Tom did not receive a receipt from Obnoxious Ed. Without a receipt, there is no way to verify how much Obnoxious Ed was actually paid. For example, it is possible that he was only paid $100 and that Tom took the rest.**

9. **Segregation of duties. Mel Harris was collecting tickets and receiving cash for additional tickets sold. Instead, there should have been one person selling tickets at the door and a second person collecting tickets.**

PROBLEM 7-1B

(a)

Principles	Application to Discount Theater
Establishment of responsibility.	Only cashiers are authorized to sell tickets. Only the manager and cashier can handle cash.
Segregation of duties.	The duties of receiving cash and admitting customers are assigned to the cashier and to the usher. The manager maintains custody of the cash, and the company accountant records the cash.
Documentation procedures.	Tickets are prenumbered. Cash count sheets are prepared. Deposit slips are prepared.
Physical controls.	A safe is used for the storage of cash and a machine is used to issue tickets.
Independent internal verification.	Cash counts are made by the manager at the end of each cashier's shift. Daily comparisons are made by the company treasurer.
Human resource controls.	Shifts are rotated among the cashiers.

(b) Actions by the usher and cashier to misappropriate cash might include:

1. Instead of tearing the tickets, the usher could return the tickets to the cashier who could resell them, and the two could divide the cash.

2. The cashier could issue a lower price ticket than paid for and the usher would admit the customer. The difference between the ticket issued and the cash received could be divided between the usher and cashier.

PROBLEM 7-2B

(a)

			Debit	Credit
July	1	Petty Cash	100.00	
		Cash		100.00
	15	Freight-out	51.00	
		Postage Expense	20.50	
		Entertainment Expense	23.10	
		Miscellaneous Expense	4.10	
		Cash		96.90
		Cash Over and Short		1.80
	31	Freight-out	43.50	
		Charitable Contributions Expense	20.00	
		Postage Expense	20.10	
		Miscellaneous Expense	12.30	
		Cash		95.90
Aug.	15	Freight-out	40.20	
		Entertainment Expense	21.00	
		Postage Expense	14.00	
		Miscellaneous Expense	19.80	
		Cash Over and Short	3.00	
		Cash		98.00
	16	Petty Cash	50.00	
		Cash		50.00
	31	Freight-out	74.00	
		Entertainment Expense	43.20	
		Postage Expense	17.70	
		Cash Over and Short	2.10	
		Cash		137.00

(b)

Petty Cash

Date	Explanation	Ref.	Debit	Credit	Balance
July 1		CP	100		100
Aug. 16		CP	50		150

PROBLEM 7-2B (Continued)

(c) The internal control features of a petty cash fund include:

1. **A custodian is responsible for the fund.**

2. **A prenumbered petty cash receipt signed by the custodian and the individual receiving payment is required for each payment from the fund.**

3. **The treasurer's office examines all payments and stamps supporting documents to indicate they were paid when the fund is replenished.**

4. **Surprise counts can be made at any time to determine whether the fund is intact.**

PROBLEM 7-3B

(a)

WOLVERINE GENETICS COMPANY
Bank Reconciliation
May 31, 2011

Cash balance per bank statement		$13,332
Add: Deposit in transit	$2,100	
Bank error—Carr check................................	900	3,000
		16,332
Less: Outstanding checks.......................................		1,225
Adjusted cash balance per bank		$15,107
Cash balance per books..		$13,287
Add: Collection of note receivable ($4,000 note plus $80 interest less $25 fee)		4,055
		17,342
Less: NSF check...	$1,308	
Error in May 12 deposit	100	
Error in recording check No. 1181	792*	
Check printing charge	35	2,235
Adjusted cash balance per books		$15,107

*$911 – $119

(b)

Date	Account	Debit	Credit
May 31	Cash	4,055	
	Miscellaneous Expense.......................................	25	
	Notes Receivable		4,000
	Interest Revenue		80
31	Accounts Receivable—Bo Sclembech............	1,308	
	Cash		1,308
31	Sales	100	
	Cash		100
31	Accounts Payable—G. Fischer	792	
	Cash		792
31	Miscellaneous Expense.......................................	35	
	Cash		35

PROBLEM 7-4B

(a)

BRASILIA COMPANY
Bank Reconciliation
November 30, 2011

Balance per bank statement		R$ 9,100
Add: Deposits in transit		1,541
		10,641
Less: Outstanding checks		
No. 2451	R$700	
No. 2472	270	
No. 2478	300	
No. 2482	350	
No. 2484	460	
No. 2485	525	
No. 2487	210	
No. 2488	635	3,450
Adjusted cash balance per bank		R$ 7,191
Balance per books		R$ 5,958
Add: Note collected by bank (R$1,300 note plus R$91 interest less R$16 fee)		1,375
		7,333
Less: Check printing charge	R$ 34	
Error in recording check No. 2479	90*	
Error in 11-21 deposit (R$1,642 – R$1,624)	18	142
Adjusted cash balance per books		R$ 7,191

*R$980 – R$890

PROBLEM 7-4B (Continued)

(b)	Nov. 30	Cash	1,375	
		Miscellaneous Expense	16	
		Notes Receivable		1,300
		Interest Revenue		91
	30	Miscellaneous Expense	34	
		Cash		34
	30	Accounts Payable	90	
		Cash		90
	30	Accounts Receivable	18	
		Cash		18

PROBLEM 7-5B

(a)

BUMMER COMPANY
Bank Reconciliation
August 31, 2011

Cash balance per bank statement		$16,856
Add: Deposits in transit (1)	$ 5,129	
Bank error ($277 – $275)	2	5,131
		21,987
Less: Outstanding checks (2)		4,156
Adjusted cash balance per bank		$17,831
Cash balance per books		$13,215
Add: Collection of note receivable by bank ($4,400 note plus $105 interest)	$ 4,505	
Book error ($430 – $340)	90	
Interest earned	41	4,636
		17,851
Less: Safety deposit box rent		20
Adjusted cash balance per books		$17,831

(1) August receipts per books		$50,050
August deposits per bank	$47,521	
Less: Deposits in transit, July 31	2,600	44,921
Deposits in transit, August 31		$ 5,129

(2) Disbursements per books in August			$47,794
Less: Book error			90
Total disbursements to be accounted for			47,704
Checks clearing bank in August		$46,475	
Less: Bank error	$ 2		
July 31 outstanding checks	2,925	2,927	43,548
Outstanding checks, August 31			$ 4,156

PROBLEM 7-5B (Continued)

(b)	Aug. 31	Cash	4,505	
		Notes Receivable		4,400
		Interest Revenue		105
	31	Cash	90	
		Accounts Payable		90
	31	Cash	41	
		Interest Revenue		41
	31	Miscellaneous Expense	20	
		Cash		20

PROBLEM 7-6B

(a)

GAZARRA COMPANY
Bank Reconciliation
October 31, 2011

Balance per bank statement	£15,453.00
Plus: Undeposited receipts	3,226.18
	18,679.18
Less: Outstanding checks	

No.	Amount	No.	Amount	
62	£107.74	862	£162.10	
183	127.50	863	192.78	
284	215.26	864	140.49	945.87

Adjusted balance per bank	£17,733.31
Cash balance per books	£18,608.81
Add: Bank credit (collection of note receivable)	340.00
Adjusted balance per books (before theft)	18,948.81
Theft	1,215.50*
Adjusted balance per books	£17,733.31

*£18,948.81 – £17,733.31

(b) The cashier attempted to cover the theft of £1,215.50 by:

1. Not listing as outstanding three checks totaling £450.50 (No. 62, £107.74; No. 183, £127.50; and No. 284, £215.26).

2. Underfooting the outstanding checks listed by £85.06 (The correct total is £495.37.)

3. Subtracting the £340 bank credit from the book balance instead of adding it to the book balance, thereby concealing £680 of the theft.

PROBLEM 7-6B (Continued)

(c) 1. The principle of independent internal verification has been violated because the cashier prepared the bank reconciliation.

2. The principle of segregation of duties has been violated because the cashier had access to the accounting records and also prepared the bank reconciliation.

BYP 7-1 FINANCIAL REPORTING PROBLEM

(a) **Cash and cash equivalents are reported at £251 million for 2008 and £493 million for 2007.**

(b) **Cash equivalents are defined as "cash on hand and demand deposits."**

(c) **The Directors are responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the Group and Company, for safeguarding the assets, for taking reasonable steps for the prevention and detection of fraud and other irregularities and for the preparation of a Directors 'Report and Directors' Remuneration Report which comply with requirements of the Companies Act 1985. The Directors have general responsibilities for taking such steps as are reasonably open to them to safeguard the assets of the Group and to prevent and detect fraud and other irregularities.**

BYP 7-2 COMPARATIVE ANALYSIS PROBLEM

		Cadbury	Nestlé
(a)	(1)	£251 million	CHF 5,835 million
	(2)	£242 million decrease	CHF 759 million decrease
	(3)	£469 million	CHF10,763 million

(b) Both companies generated significant funds from operating activities. This cash is used for investing and financing activities. Both companies use the cash provided by operating activities to purchase land, buildings and equipment, to make acquisitions of other companies, to buy back their stock, and to pay dividends. Both companies have large cash balances at the end of 2008 and are capable of generating huge amounts of cash.

BYP 7-3 EXPLORING THE WEB

(a) The system of internal control should be evaluated by: (1) responsible individuals from a particular university unit, (2) internal auditors, and (3) university management.

(b) Reconciliations ensure accuracy and completeness of transactions. In particular, a reconciliation ensures that all cash received is: (1) properly deposited in university bank accounts and (2) recorded accurately in the financial records. The reconciliation should be reviewed by the department manager.

(c) Some examples given of physical controls are a safe, vault, locked doors, campus police, computer passwords, and card key systems.

(d) Two ways to accomplish inventory counts are: (1) annual complete inventory or (2) cycle counting programs.

BYP 7-4 DECISION MAKING ACROSS THE ORGANIZATION

(a) The weaknesses in internal accounting control over collections are:

1. **Each usher could take cash from the collection plates enroute to the basement office.**
2. **The head usher counts the cash alone.**
3. **The head usher's notation of the count is left in the safe.**
4. **The financial secretary counts the cash alone.**
5. **The financial secretary withholds $150 to $200 per week.**
6. **The cash is vulnerable to robbery when kept in the safe overnight.**
7. **Checks are made payable to "cash."**
8. **The financial secretary has custody of the cash, maintains church records, and prepares the bank reconciliation.**

(b) The improvements should include the following:

1. **The ushers should transfer their cash collections to a cash pouch (or bag) held by the head usher. The transfer should be witnessed by a member of the finance committee.**
2. **The head usher and finance committee member should take the cash to the office. The cash should be counted by the head usher and the financial secretary in the presence of the finance committee member.**
3. **Following the count, the financial secretary should prepare a deposit slip in duplicate for the total cash received, and the secretary should immediately deposit the cash in the bank's night deposit vault.**
4. **At the end of each month, a member of the finance committee should prepare the bank reconciliation.**

(c) The policies that should be changed are:

1. **Members should make checks payable to the church.**
2. **A petty cash fund should be established for the financial secretary to be used for weekly cash expenditures and requests for replenishment of the fund should be sent to the chairperson of the finance committee for approval.**
3. **The financial secretary should be bonded.**
4. **The financial secretary should be required to take an annual vacation.**

BYP 7-5 COMMUNICATION ACTIVITY

Mr. Jerry Mays
Manhattan Company
Main Street, USA

Dear Mr. Mays:

During our audit of your financial statements, we reviewed the internal controls over cash receipts. The weaknesses we discovered and our suggested improvements are listed below.

	Weaknesses	Suggested Improvement
1.	A list of checks received is not prepared by the person who opens the mail.	This list should be prepared so that it can later be compared with the daily cash summary. While this procedure does not assure that all checks will be listed, it does allow the company to verify that all checks on the list did get deposited.
2.	Mail is opened by only one person.	When this occurs, there is no assurance that all incoming checks are forwarded to the cashier's department.
3.	The cashier is allowed to open the mail.	Under this arrangement, it is possible for the cashier to open the mail, prepare the cash summary and make the bank deposit. This involves no segregation of duties as the cashier controls the cash from the time it is received until it is deposited in the bank.
4.	The accounts receivable clerk is allowed to open the mail.	Again, there is poor segregation of duties. In this case, the clerk could writeoff a customer's account as uncollectible and then misappropriate the collection when it's received.

BYP 7-5 (Continued)

	Weaknesses	Suggested Improvement
5.	Mail receipts are deposited weekly.	This makes the receipts vulnerable to robbery and to misappropriation. The receipts should be deposited intact daily.

We would be pleased to discuss the weaknesses and our recommended improvements with you, at your convenience.

Yours sincerely,

Croix, Marais, and Kale
Certified Public Accountants

BYP 7-6 ETHICS CASE

(a) You, as assistant controller, may suffer some negative effects from Gena Schmitt, the financial vice-president, if you don't follow her instructions. Maybe the insurance company will react the way Gena suggests, but probably not.

If you comply and falsify the June 30 cash balance by holding the cash receipts book open for one day, you will suffer personally by sacrificing your integrity. If you are found out, you could be prosecuted for preparing a fraudulent report. The insurance company, as the lender and creditor, is deceived.

(b) Holding the cash receipts book open in order to overstate the cash balance is a fraudulent, deceitful, unethical action. The financial vice-president should not encourage such behavior and a controller should not follow such instructions.

(c) (1) You can follow the vice-president's instructions and misstate the cash balance—wrong! (2) You can advise the vice-president against holding the books open, prepare an accurate report, and have the vice-president or the president discuss the situation with the insurance company. It can be explained that the low cash balance was only temporary. Honesty is still the best policy.

CHAPTER 8

Accounting for Receivables

ASSIGNMENT CLASSIFICATION TABLE

Study Objectives	Questions	Brief Exercises	Do It!	Exercises	A Problems	B Problems
1. Identify the different types of receivables.	1, 2	1				
2. Explain how companies recognize accounts receivable.	3	2		1, 2	1A, 3A, 4A, 6A, 7A	1B, 3B, 4B, 6B, 7B
3. Distinguish between the methods and bases companies use to value accounts receivable.	4, 5, 6, 7, 8	3, 4, 5, 6, 7	1	3, 4, 5, 6	1A, 2A, 3A, 4A, 5A	1B, 2B, 3B, 4B, 5B
4. Describe the entries to record the disposition of accounts receivable.	9, 10, 11	8	2	7, 8, 9	6A, 7A	6B, 7B
5. Compute the maturity date of and interest on notes receivable.	12, 13, 14, 15, 16	9, 10	3	10, 11, 12, 13	6A, 7A	6B, 7B
6. Explain how companies recognize notes receivable.		11		10, 11, 12	7A	7B
7. Describe how companies value notes receivable.					7A	7B
8. Describe the entries to record the disposition of notes receivable.	17		3	12, 13	6A, 7A	6B, 7B
9. Explain the statement presentation and analysis of receivables.	18, 19	3, 12	4	14	1A, 6A	1B, 6B

ASSIGNMENT CHARACTERISTICS TABLE

Problem Number	Description	Difficulty Level	Time Allotted (min.)
1A	Prepare journal entries related to bad debts expense.	Simple	15–20
2A	Compute bad debts amounts.	Moderate	20–25
3A	Journalize entries to record transactions related to bad debts.	Moderate	20–30
4A	Journalize transactions related to bad debts.	Moderate	20–30
5A	Journalize entries to record transactions related to bad debts.	Moderate	20–30
6A	Prepare entries for various notes receivable transactions.	Moderate	40–50
7A	Prepare entries for various receivable transactions.	Complex	50–60
1B	Prepare journal entries related to bad debts expense.	Simple	15–20
2B	Compute bad debts amounts.	Moderate	20–25
3B	Journalize entries to record transactions related to bad debts.	Moderate	20–30
4B	Journalize transactions related to bad debts.	Moderate	20–30
5B	Journalize entries to record transactions related to bad debts.	Moderate	20–30
6B	Prepare entries for various notes receivable transactions.	Moderate	40–50
7B	Prepare entries for various receivable transactions.	Complex	50–60

WEYGANDT IFRS 1E
CHAPTER 8
ACCOUNTING FOR RECEIVABLES

Number	SO	BT	Difficulty	Time (min.)
BE1	1	C	Simple	1–2
BE2	2	AP	Simple	5–7
BE3	3, 9	AN	Simple	4–6
BE4	3	AP	Simple	4–6
BE5	3	AP	Simple	4–6
BE6	3	AP	Simple	2–4
BE7	3	AN	Simple	4–6
BE8	4	AP	Simple	6–8
BE9	5	AP	Simple	8–10
BE10	5	AP	Moderate	8–10
BE11	6	AP	Simple	2–4
BE12	9	AP	Simple	4–6
DI1	3	AP	Simple	2–4
DI2	4	AP	Simple	4–6
DI3	5, 8	AP	Simple	6–8
DI4	9	AN	Simple	4–6
EX1	2	AP	Simple	8–10
EX2	2	AP	Simple	8–10
EX3	3	AN	Simple	8–10
EX4	3	AN	Simple	6–8
EX5	3	AP	Simple	6–8
EX6	3	AP	Simple	6–8
EX7	4	AP	Simple	4–6
EX8	4	AP	Simple	6–8
EX9	4	AP	Simple	6–8
EX10	5, 6	AN	Simple	8–10
EX11	5, 6	AN	Simple	6–8
EX12	5, 6, 8	AP	Moderate	10–12
EX13	5, 8	AP	Simple	8–10
EX14	9	AP	Simple	8–10

Number	SO	BT	Difficulty	Time (min.)
P1A	2, 3, 9	AN	Simple	15–20
P2A	3	AN	Moderate	20–25
P3A	2, 3	AN	Moderate	20–30
P4A	2, 3	AN	Moderate	20–30
P5A	3	AN	Moderate	20–30
P6A	2, 4, 5, 8, 9	AN	Moderate	40–50
P7A	2, 4–8	AP	Complex	50–60
P1B	2, 3, 9	AN	Simple	15–20
P2B	3	AN	Moderate	20–25
P3B	2, 3	AN	Moderate	20–30
P4B	2, 3	AN	Moderate	20–30
P5B	3	AN	Moderate	20–30
P6B	2, 4, 5, 8, 9	AN	Moderate	40–50
P7B	2, 4–8	AP	Complex	50–60
BYP1	3	E	Moderate	20–25
BYP2	9	AN, E	Simple	10–15
BYP3	8	AP	Simple	10–15
BYP4	4	AN	Moderate	20–30
BYP5	3	E	Simple	10–15
BYP6	3	E	Simple	10–15

BLOOM'S TAXONOMY TABLE

Correlation Chart between Bloom's Taxonomy, Study Objectives and End-of-Chapter Exercises and Problems

Study Objective	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
1. Identify the different types of receivables.	Q8-2	Q8-1 BE8-1				
2. Explain how companies recognize accounts receivable.			Q8-3 BE8-2 E8-1 E8-2 P8-7A P8-7B	P8-1A P8-3A P8-4A P8-6A P8-1B P8-3B P8-4B P8-6B		
3. Distinguish between the methods and bases used to value accounts receivable.	Q8-8	Q8-4 Q8-5 Q8-6	BE8-4 BE8-5 BE8-6 DI8-1 E8-5 E8-6	Q8-7 BE8-3 BE8-7 E8-3 E8-4 P8-1A P8-2A P8-3A P8-4A P8-5A P8-1B P8-2B P8-3B P8-4B P8-5B		
4. Describe the entries to record the disposition of accounts receivable.	Q8-9	Q8-10	Q8-11 BE8-8 DI8-2 E8-7 E8-8 E8-9 P8-7A P8-7B	P8-6A P8-6B		
5. Compute the maturity date of and interest on notes receivable.	Q8-13	Q8-12 Q8-16	Q8-14 Q8-15 BE8-9 BE8-10 DI8-3 E8-12 E8-13 P8-7A P8-7B	E8-10 E8-11 P8-6A P8-6B		
6. Explain how companies recognize notes receivable.			BE8-11 P8-7A P8-7B E8-12	E8-10 E8-11		
7. Describe how companies value notes receivable.			P8-7A P8-7B			
8. Describe the entries to record the disposition of notes receivable.		Q8-17	DI8-3 E8-12 E8-13 P8-7A P8-7B	P8-6A P8-6B		
9. Explain the statement presentation and analysis of receivables.	Q8-18		Q8-19 BE8-12 E8-14	BE8-3 DI8-4 P8-1A P8-6A P8-1B P8-6B		
Broadening Your Perspective			Exploring the Web	Comparative Analysis Decision Making Across the Organization		Financial Reporting Comparative Analysis Communication Ethics Case

ANSWERS TO QUESTIONS

1. Accounts receivable are amounts owed by customers on account. They result from the sale of goods and services. Notes receivable represent claims that are evidenced by formal instruments of credit.

2. Other receivables include nontrade receivables such as interest receivable, loans to company officers, advances to employees, and income taxes refundable.

3.

Accounts Receivable	40	
Interest Revenue		40

4. The essential features of the allowance method of accounting for bad debts are:
   (1) Uncollectible accounts receivable are estimated and matched against revenue in the same accounting period in which the revenue occurred.
   (2) Estimated uncollectibles are debited to Bad Debts Expense and credited to Allowance for Doubtful Accounts through an adjusting entry at the end of each period.
   (3) Actual uncollectibles are debited to Allowance for Doubtful Accounts and credited to Accounts Receivable at the time the specific account is written off.

5. Jerry Gatewood should realize that the decrease in cash realizable value occurs when estimated uncollectibles are recognized in an adjusting entry. The write-off of an uncollectible account reduces both accounts receivable and the allowance for doubtful accounts by the same amount. Thus, cash realizable value does not change.

6. The two bases of estimating uncollectibles are: (1) percentage-of-sales and (2) percentage-of-receivables. The percentage-of-sales basis establishes a percentage relationship between the amount of credit sales and expected losses from uncollectible accounts. This method emphasizes the matching of expenses with revenues. Under the percentage-of-receivables basis, the balance in the allowance for doubtful accounts is derived from an analysis of individual customer accounts. This method emphasizes cash realizable value.

7. The adjusting entry under the percentage-of-sales basis is:

Bad Debts Expense	4,100	
Allowance for Doubtful Accounts		4,100

   The adjusting entry under the percentage-of-receivables basis is:

Bad Debts Expense	2,300	
Allowance for Doubtful Accounts ($5,800 – $3,500)		2,300

8. Under the direct write-off method, bad debt losses are not estimated and no allowance account is used. When an account is determined to be uncollectible, the loss is debited to Bad Debts Expense. The direct write-off method makes no attempt to match bad debts expense to sales revenues or to show the cash realizable value of the receivables in the statement of financial position.

9. From its own credit cards, the DeVito Company may realize financing charges from customers who do not pay the balance due within a specified grace period. National credit cards offer the following advantages:
   (1) The credit card issuer makes the credit investigation of the customer.
   (2) The issuer maintains individual customer accounts.

(3) The issuer undertakes the collection process and absorbs any losses from uncollectible accounts.
(4) The retailer receives cash more quickly from the credit card issuer than it would from individual customers.

10. The reasons companies are selling their receivables are:
(1) Receivables may be sold because they may be the only reasonable source of cash.
(2) Billing and collection are often time-consuming and costly. It is often easier for a retailer to sell the receivables to another party with expertise in billing and collection matters.

11.

Cash	582,000	
Service Charge Expense (3% X $600,000)	18,000	
Accounts Receivable		600,000

12. A promissory note gives the holder a stronger legal claim than one on an accounts receivable. As a result, it is easier to sell to another party. Promissory notes are negotiable instruments, which means they can be transferred to another party by endorsement. The holder of a promissory note also can earn interest.

13. The maturity date of a promissory note may be stated in one of three ways: (1) on demand, (2) on a stated date, and (3) at the end of a stated period of time.

14. The maturity dates are: (a) March 13 of the next year, (b) August 4, (c) July 20, and (d) August 30.

15. The missing amounts are: (a) $20,000, (b) $9,000, (c) 8%, and (d) four months.

16. If a financial institution uses 360 days rather than 365 days, it will receive more interest revenue. The reason is that the denominator is smaller, which makes the fraction larger and, therefore, the interest revenue larger.

17. When Cain Company has dishonored a note, the lender can set up a receivable equal to the face amount of the note plus the interest due. It will then try to collect the balance due, or as much as possible. If there is no hope of collection it will write-off the receivable.

18. Each of the major types of receivables should be identified in the statement of financial position or in the notes to the financial statements. Both the gross amount of receivables and the allowance for doubtful accounts should be reported. If collectible within a year or the operating cycle, whichever is longer, these receivables are reported as current assets immediately above short-term investments.

19. Net credit sales for the period are 8.14 X $400,000 = $3,256,000.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 8-1

(a) Accounts receivable.
(b) Notes receivable.
(c) Other receivables.

BRIEF EXERCISE 8-2

(a)	Accounts Receivable	15,200	
	Sales		15,200
(b)	Sales Returns and Allowances	3,800	
	Accounts Receivable		3,800
(c)	Cash ($11,400 – $228)	11,172	
	Sales Discounts ($11,400 X 2%)	228	
	Accounts Receivable ($15,200 – $3,800)		11,400

BRIEF EXERCISE 8-3

(a)	Bad Debts Expense	35,000	
	Allowance for Doubtful Accounts		35,000

(b)	Current assets		
	Prepaid expenses		$ 7,500
	Merchandise inventory		130,000
	Accounts receivable	$600,000	
	Less: Allowance for doubtful Accounts	35,000	565,000
	Cash		90,000
	Total current assets		$792,500

BRIEF EXERCISE 8-4

		Debit	Credit
(a)	Allowance for Doubtful Accounts	5,400	
	Accounts Receivable—Ristau		5,400

(b)

	(1) Before Write-Off	(2) After Write-Off
Accounts receivable	£700,000	£694,600
Allowance for doubtful accounts	54,000	48,600
Cash realizable value	£646,000	£646,000

BRIEF EXERCISE 8-5

	Debit	Credit
Accounts Receivable—Ristau	5,400	
Allowance for Doubtful Accounts		5,400
Cash	5,400	
Accounts Receivable—Ristau		5,400

BRIEF EXERCISE 8-6

	Debit	Credit
Bad Debts Expense [($800,000 – $45,000) X 2%]	15,100	
Allowance for Doubtful Accounts		15,100

BRIEF EXERCISE 8-7

		Debit	Credit
(a)	Bad Debts Expense [(¥450,000 X 1%) – ¥1,500]	3,000	
	Allowance for Doubtful Accounts		3,000

(b) Bad Debts Expense [(¥450,000 X 1%) + ¥800] = ¥5,300

BRIEF EXERCISE 8-8

		Debit	Credit
(a)	Cash (€150 – €6)	144	
	Service Charge Expense (€150 X 4%)	6	
	Sales		150
(b)	Cash (€60,000 – €1,800)	58,200	
	Service Charge Expense (€60,000 X 3%)	1,800	
	Accounts Receivable		60,000

BRIEF EXERCISE 8-9

	Interest	Maturity Date
(a)	$800	August 9
(b)	$875	October 12
(c)	$200	July 11

BRIEF EXERCISE 8-10

	Maturity Date	Annual Interest Rate	Total Interest
(a)	May 31	9%	$9,000
(b)	August 1	8%	$ 600
(c)	September 7	10%	$6,000

BRIEF EXERCISE 8-11

Jan. 10	Accounts Receivable	13,600	
	Sales		13,600
Feb. 9	Notes Receivable	13,600	
	Accounts Receivable		13,600

BRIEF EXERCISE 8-12

Accounts Receivable Turnover Ratio:

$$\frac{\$20B}{(\$2.7B + \$2.8B) \div 2} = \frac{\$20B}{\$2.75B} = 7.3 \text{ times}$$

Average Collection Period for Accounts Receivable:

$$\frac{365 \text{ days}}{7.3 \text{ times}} = 50 \text{ days}$$

SOLUTIONS FOR DO IT! REVIEW EXERCISES

DO IT! 8-1

The following entry should be prepared to bring the balance in the Allowance for Doubtful Accounts up from R$6,100 credit to R$21,700 credit (7% X R$310,000):

Bad Debts Expense	15,600	
Allowance for Doubtful Accounts		15,600
(To record estimate of uncollectible accounts)		

DO IT! 8-2

To speed up the collection of cash, Ronald could sell its accounts receivable to a factor. Assuming the factor charges Ronald a 2% service charge, it would make the following entry:

Cash	980,000	
Service Charge Expense	20,000	
Accounts Receivable		1,000,000
(To record sale of receivables to factor)		

DO IT! 8-3

(a) The maturity date is September 30. When the life of a note is expressed in terms of months, you find the date it matures by counting the months from the date of issue. When a note is drawn on the last day of a month, it matures on the last day of a subsequent month.

(b) The interest to be received at maturity is $248:

Face X Rate X Time = Interest

$6,200 X 12% X 4/12 = $248

The entry recorded by Galen Wholesalers at the maturity date is:

Cash	6,448	
Notes Receivable		6,200
Interest Revenue		248
(To record collection of Picard note)		

DO IT! 8-4

(a)

Net credit sales	÷	Average net accounts receivable	=	Accounts receivable turnover
$1,600,000	÷	$\frac{\$101,000 + \$107,000}{2}$	=	15.4 times

(b)

Days in year	÷	Accounts receivable turnover	=	Average collection period in days
365	÷	15.4 times	=	23.7 days

SOLUTIONS TO EXERCISES

EXERCISE 8-1

March	1	Accounts Receivable—CC Company	3,000	
		Sales		3,000
	3	Sales Returns and Allowances	500	
		Accounts Receivable—CC Company		500
	9	Cash	2,450	
		Sales Discounts	50	
		Accounts Receivable—CC Company		2,500
	15	Accounts Receivable	400	
		Sales		400
	31	Accounts Receivable	6	
		Interest Revenue		6

EXERCISE 8-2

(a)	Jan. 6	Accounts Receivable—Cortez	9,000	
		Sales		9,000
	16	Cash ($9,000 – $180)	8,820	
		Sales Discounts (2% X $9,000)	180	
		Accounts Receivable—Cortez		9,000
(b)	Jan. 10	Accounts Receivable—Dawes	9,000	
		Sales		9,000
	Feb. 12	Cash	5,000	
		Accounts Receivable—Dawes		5,000
	Mar. 10	Accounts Receivable—Dawes	80	
		Interest Revenue [2% X ($9,000 – $5,000)]		80

EXERCISE 8-3

				Debit	Credit
(a)		Dec. 31	Bad Debts Expense	1,400	
			Accounts Receivable—Fell		1,400
(b)	(1)	Dec. 31	Bad Debts Expense		
			[(€840,000 – €30,000) X 1%]	8,100	
			Allowance for Doubtful Accounts		8,100
	(2)	Dec. 31	Bad Debts Expense	9,900	
			Allowance for Doubtful Accounts [(€120,000 X 10%) – €2,100]		9,900
(c)	(1)	Dec. 31	Bad Debts Expense		
			[(€840,000 – €30,000) X .75%]	6,075	
			Allowance for Doubtful Accounts		6,075
	(2)	Dec. 31	Bad Debts Expense	7,400	
			Allowance for Doubtful Accounts [(€120,000 X 6%) + €200]		7,400

EXERCISE 8-4

(a)

Accounts Receivable	Amount	%	Estimated Uncollectible
1–30 days	$60,000	2.0	$1,200
31–60 days	17,600	5.0	880
61–90 days	8,500	30.0	2,550
Over 90 days	7,000	50.0	3,500
			$8,130

			Debit	Credit
(b)	Mar. 31	Bad Debts Expense	6,930	
		Allowance for Doubtful Accounts ($8,130 – $1,200)		6,930

EXERCISE 8-5

Allowance for Doubtful Accounts	13,000	
Accounts Receivable		13,000
Accounts Receivable	1,800	
Allowance for Doubtful Accounts		1,800
Cash	1,800	
Accounts Receivable		1,800
Bad Debts Expense	15,200	
Allowance for Doubtful Accounts [£19,000 – (£15,000 – £13,000 + £1,800)]		15,200

EXERCISE 8-6

December 31, 2011		
Bad Debts Expense (2% X $400,000)	8,000	
Allowance for Doubtful Accounts		8,000
May 11, 2012		
Allowance for Doubtful Accounts	1,100	
Accounts Receivable—Frye		1,100
June 12, 2012		
Accounts Receivable—Frye	1,100	
Allowance for Doubtful Accounts		1,100
Cash	1,100	
Accounts Receivable—Frye		1,100

EXERCISE 8-7

(a)	Mar. 3	Cash (W680,000,000 – W20,400,000)	659,600,000	
		Service Charge Expense (3% X W680,000,000)	20,400,000	
		Accounts Receivable		680,000,000
(b)	May 10	Cash (W3,500,000 – W140,000)	3,360,000	
		Service Charge Expense (4% X W3,500,000)	140,000	
		Sales		3,500,000

EXERCISE 8-8

(a)	Apr. 2	Accounts Receivable—Nancy Hansel	1,500	
		Sales		1,500
	May 3	Cash	700	
		Accounts Receivable—Nancy Hansel		700
	June 1	Accounts Receivable—Nancy Hansel	8	
		Interest Revenue [($1,500 – $700) X 1%]		8
(b)	July 4	Cash	194	
		Service Charge Expense (3% X $200)	6	
		Sales		200

EXERCISE 8-9

(a)	Jan. 15	Accounts Receivable	18,000	
		Sales		18,000
	20	Cash (HK$4,300 – HK$86).............................	4,214	
		Service Charge Expense (HK$4,300 X 2%)...	86	
		Sales		4,300
	Feb. 10	Cash	10,000	
		Accounts Receivable		10,000
	15	Accounts Receivable (HK$8,000 X 1%)....	80	
		Interest Revenue......................................		80

(b) Interest Revenue is reported under other income and expenses. Service Charge Expense is a selling expense.

EXERCISE 8-10

(a)

		2011		
Nov.	1	Notes Receivable	15,000	
		Cash		15,000
Dec.	11	Notes Receivable	6,750	
		Sales		6,750
	16	Notes Receivable	4,000	
		Accounts Receivable—Reber		4,000
	31	Interest Receivable	295	
		Interest Revenue*		295

*Calculation of interest revenue:

Givens's note:	$15,000 X	10% X	2/12 =	$250
Countryman's note:	6,750 X	8% X	20/360 =	30
Reber's note:	4,000 X	9% X	15/360 =	15
Total accrued interest				$295

(b)

		2012		
Nov.	1	Cash	16,500	
		Interest Receivable		250
		Interest Revenue*		1,250
		Notes Receivable		15,000

*($15,000 X 10% X 10/12)

EXERCISE 8-11

		2011		
May	1	Notes Receivable	7,500	
		Accounts Receivable—Julia Gonzalez		7,500
Dec.	31	Interest Receivable	500	
		Interest Revenue (€7,500 X 10% X 8/12)		500
	31	Interest Revenue	500	
		Income Summary		500

EXERCISE 8-11 (Continued)

	2012		
May 1	Cash	8,250	
	Notes Receivable		7,500
	Interest Receivable		500
	Interest Revenue		
	(€7,500 X 10% X 4/12)		250

EXERCISE 8-12

4/1/11	Notes Receivable	20,000	
	Accounts Receivable—Wilson		20,000
7/1/11	Notes Receivable	25,000	
	Cash		25,000
12/31/11	Interest Receivable	1,800	
	Interest Revenue		
	($20,000 X 12% X 9/12)		1,800
	Interest Receivable	1,250	
	Interest Revenue		
	($25,000 X 10% X 6/12)		1,250
4/1/12	Cash	22,400	
	Notes Receivable		20,000
	Interest Receivable		1,800
	Interest Revenue		
	($20,000 X 12% X 3/12 = $600)		600
	Accounts Receivable	26,875	
	Notes Receivable		25,000
	Interest Receivable		1,250
	Interest Revenue		
	($25,000 X 10% X 3/12 = $625)		625

EXERCISE 8-13

(a)	May 2	Notes Receivable	7,600,000	
		Cash		7,600,000
(b)	Nov. 2	Accounts Receivable—Everhart Inc.	7,942,000	
		Notes Receivable		7,600,000
		Interest Revenue (¥7,600,000 X 9% X 1/2)		342,000
		(To record the dishonor of Everhart Inc. note with expectation of collection)		
(c)	Nov. 2	Allowance for Doubtful Accounts	7,600,000	
		Notes Receivable		7,600,000
		(To record the dishonor of Everhart Inc. note with no expectation of collection)		

EXERCISE 8-14

(a)	Beginning accounts receivable	$ 100,000
	Net credit sales	1,000,000
	Cash collections	(900,000)
	Accounts written off	(30,000)
	Ending accounts receivable	$ 170,000

(b) $1,000,000/[($100,000 + $170,000)/2] = 7.41

(c) 365/7.41 = 49.3 days

SOLUTIONS TO PROBLEMS

PROBLEM 8-1A

(a)

			Debit	Credit
1.	Accounts Receivable		3,200,000	
		Sales		3,200,000
2.	Sales Returns and Allowances		50,000	
		Accounts Receivable		50,000
3.	Cash		2,810,000	
		Accounts Receivable		2,810,000
4.	Allowance for Doubtful Accounts		90,000	
		Accounts Receivable		90,000
5.	Accounts Receivable		24,000	
		Allowance for Doubtful Accounts		24,000
	Cash		24,000	
		Accounts Receivable		24,000

(b)

Accounts Receivable

Bal.	960,000	(2)	50,000
(1)	3,200,000	(3)	2,810,000
(5)	24,000	(4)	90,000
		(5)	24,000
Bal.	1,210,000		

Allowance for Doubtful Accounts

(4)	90,000	Bal.	80,000
		(5)	24,000
		Bal.	14,000

PROBLEM 8-1A (Continued)

(c)

Balance needed	R$115,000
Balance before adjustment [see (b)]	14,000
Adjustment required	R$101,000

The journal entry would therefore be as follows:

Bad Debts Expense	101,000	
Allowance for Doubtful Accounts		101,000

(d) $$\frac{R\$3,200,000 - R\$50,000}{(R\$880,000 + R\$1,095,000) \div 2} = \frac{R\$3,150,000}{R\$987,500} = 3.19 \text{ times}$$

PROBLEM 8-2A

(a) £33,000.

(b) £44,000 (£2,200,000 X 2%).

(c) £46,500 [(£825,000 X 6%) – £3,000].

(d) £52,500 [(£825,000 X 6%) + £3,000].

(e) The weakness of the direct write-off method is two-fold. First, it does not match expenses with revenues. Second, the accounts receivable are not stated at cash realizable value at the year-end reporting date.

PROBLEM 8-3A

(a)	Dec. 31	Bad Debts Expense	30,610	
		Allowance for Doubtful Accounts ($42,610 – $12,000)		30,610

(a) & (b)

Bad Debts Expense

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
Dec.	31	Adjusting		30,610		30,610

Allowance for Doubtful Accounts

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
Dec.	31	Balance				12,000
	31	Adjusting			30,610	42,610
2012						
Mar.	31			1,000		41,610
May	31				1,000	42,610

(b)

2012

(1)

Mar. 31	Allowance for Doubtful Accounts	1,000	
	Accounts Receivable		1,000

(2)

May 31	Accounts Receivable	1,000	
	Allowance for Doubtful Accounts		1,000
31	Cash	1,000	
	Accounts Receivable		1,000

(c)

2012

Dec. 31	Bad Debts Expense	29,400	
	Allowance for Doubtful Accounts ($28,600 + $800)		29,400

PROBLEM 8-4A

(a) Total estimated bad debts

		Number of Days Outstanding				
	Total	0–30	31–60	61–90	91–120	Over 120
Accounts receivable	HK$375,000	HK$220,000	HK$90,000	HK$40,000	HK$10,000	HK$15,000
% uncollectible		1%	4%	6%	8%	10%
Estimated Bad debts	HK$ 10,500	HK$ 2,200	HK$ 3,600	HK$ 2,400	HK$ 800	HK$ 1,500

(b)	Bad Debts Expense	18,500	
	Allowance for Doubtful Accounts (HK$10,500 + HK$8,000)		18,500
(c)	Allowance for Doubtful Accounts	5,000	
	Accounts Receivable		5,000
(d)	Accounts Receivable	5,000	
	Allowance for Doubtful Accounts		5,000
	Cash	5,000	
	Accounts Receivable		5,000

(e) If Hú Inc. used 3% of total accounts receivable rather than aging the individual accounts the bad debts expense adjustment would be HK$19,250 [(HK$375,000 X 3%) + HK$8,000]. The rest of the entries would be the same as they were when aging the accounts receivable.

Aging the individual accounts rather than applying a percentage to the total accounts receivable should produce a more accurate allowance account and bad debts expense.

PROBLEM 8-5A

(a) The allowance method. Since the balance in the allowance for doubtful accounts is given, they must be using this method because the account would not exist if they were using the direct write-off method.

(b)	(1)	Dec. 31	Bad Debts Expense ($11,750 – $2,000)	9,750	
			Allowance for Doubtful Accounts		9,750
	(2)	Dec. 31	Bad Debts Expense ($950,000 X 1%)	9,500	
			Allowance for Doubtful Accounts		9,500
(c)	(1)	Dec. 31	Bad Debts Expense ($11,750 + $2,000)	13,750	
			Allowance for Doubtful Accounts		13,750
	(2)	Dec. 31	Bad Debts Expense	9,500	
			Allowance for Doubtful Accounts		9,500

(d)	Allowance for Doubtful Accounts	3,000	
	Accounts Receivable		3,000

Note: The entry is the same whether the amount of bad debts expense at the end of 2011 was estimated using the percentage of receivables or the percentage of sales method.

(e)	Bad Debts Expense	3,000	
	Accounts Receivable		3,000

(f) Allowance for Doubtful Accounts is a contra-asset account. It is subtracted from the gross amount of accounts receivable so that accounts receivable is reported at its cash realizable value.

PROBLEM 8-6A

(a)

Oct.	7	Accounts Receivable	6,900	
		Sales		6,900
	12	Cash ($900 – $27)	873	
		Service Charge Expense ($900 X 3%)	27	
		Sales		900
	15	Accounts Receivable	460	
		Interest Revenue		460
	15	Cash	8,107	
		Notes Receivable		8,000
		Interest Receivable ($8,000 X 8% X 45/360)		80
		Interest Revenue ($8,000 X 8% X 15/360)		27
	24	Accounts Receivable—Hughey	9,150	
		Notes Receivable		9,000
		Interest Receivable ($9,000 X 10% X 36/360)		90
		Interest Revenue ($9,000 X 10% X 24/360)		60
	31	Interest Receivable ($16,000 X 9% X 1/12)	120	
		Interest Revenue		120

(b)

Notes Receivable

Date		Explanation	Ref.	Debit	Credit	Balance
Oct.	1	Balance	✓			33,000
	15				8,000	25,000
	24				9,000	16,000

PROBLEM 8-6A (Continued)

Accounts Receivable

Date		Explanation	Ref.	Debit	Credit	Balance
Oct.	7			6,900		6,900
	15			460		7,360
	24			9,150		16,510

Interest Receivable

Date		Explanation	Ref.	Debit	Credit	Balance
Oct.	1	Balance	✓			170
	15				80	90
	24				90	0
	31			120		120

(c) Current assets

Notes receivable	$16,000
Accounts receivable	16,510
Interest receivable	120
Total receivables	$32,630

PROBLEM 8-7A

Jan. 5	Accounts Receivable—Dedonder Company	20,000	
	Sales		20,000
20	Notes Receivable	20,000	
	Accounts Receivable—Dedonder Company		20,000
Feb. 18	Notes Receivable	8,000	
	Sales		8,000
Apr. 20	Cash (€20,000 + €450)	20,450	
	Notes Receivable		20,000
	Interest Revenue (€20,000 X 9% X 3/12)		450
30	Cash (€25,000 + €1,000)	26,000	
	Notes Receivable		25,000
	Interest Revenue (€25,000 X 12% X 4/12)		1,000
May 25	Notes Receivable	4,000	
	Accounts Receivable—Jenks Inc.		4,000
Aug. 18	Cash (€8,000 + €360)	8,360	
	Notes Receivable		8,000
	Interest Revenue (€8,000 X 9% X 6/12)		360
25	Accounts Receivable—Jenks Inc. (€4,000 + €70)	4,070	
	Notes Receivable		4,000
	Interest Revenue (€4,000 X 7% X 3/12)		70
Sept. 1	Notes Receivable	12,000	
	Sales		12,000

PROBLEM 8-1B

(a)

		Debit	Credit
1.	Accounts Receivable	2,400,000	
	Sales		2,400,000
2.	Sales Returns and Allowances	45,000	
	Accounts Receivable		45,000
3.	Cash	2,250,000	
	Accounts Receivable		2,250,000
4.	Allowance for Doubtful Accounts	12,000	
	Accounts Receivable		12,000
5.	Accounts Receivable	3,000	
	Allowance for Doubtful Accounts		3,000
	Cash	3,000	
	Accounts Receivable		3,000

(b)

Accounts Receivable

Bal.	250,000	(2)	45,000
(1)	2,400,000	(3)	2,250,000
(5)	3,000	(4)	12,000
		(5)	3,000
Bal.	343,000		

Allowance for Doubtful Accounts

(4)	12,000	Bal.	15,000
		(5)	3,000
		Bal.	6,000

(c)

Balance needed	$22,000
Balance before adjustment [see (b)]	6,000
Adjustment required	$16,000

The journal entry would therefore be as follows:

	Debit	Credit
Bad Debts Expense	16,000	
Allowance for Doubtful Accounts		16,000

(d) $$\frac{\$2{,}400{,}000 - \$45{,}000}{(\$321{,}000 + \$235{,}000) \div 2} = \frac{\$2{,}355{,}000}{\$278{,}000} = 8.47 \text{ times}$$

PROBLEM 8-2B

(a) TL22,150.

(b) TL22,000 (TL1,100,000 X 2%).

(c) TL18,140 [(TL369,000 X 6%) – TL4,000].

(d) TL24,140 [(TL369,000 X 6%) + TL2,000].

(e) There are two major weaknesses with the direct write-off method. First, it does not match expenses with the associated revenues. Second, the accounts receivable are not stated at cash realizable value at the year-end reporting date.

PROBLEM 8-3B

(a)	Dec. 31	Bad Debts Expense	38,570	
		Allowance for Doubtful Accounts ($54,570 – $16,000)		38,570

(a) & (b)

Bad Debts Expense

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
Dec.	31	Adjusting		38,570		38,570

Allowance for Doubtful Accounts

Date		Explanation	Ref.	Debit	Credit	Balance
2011						
Dec.	31	Balance				16,000
	31	Adjusting			38,570	54,570
2012						
Mar.	1			1,900		52,670
May	1				1,900	54,570

(b)

2012

(1)

Mar. 1	Allowance for Doubtful Accounts	1,900	
	Accounts Receivable		1,900

(2)

May 1	Accounts Receivable	1,900	
	Allowance for Doubtful Accounts		1,900
1	Cash	1,900	
	Accounts Receivable		1,900

(c)

2012

Dec. 31	Bad Debts Expense	44,300	
	Allowance for Doubtful Accounts ($42,300 + $2,000)		44,300

PROBLEM 8-4B

(a) **Total estimated bad debts**

		Number of Days Outstanding				
	Total	0–30	31–60	61–90	91–120	Over 120
Accounts receivable	CHF375,000	CHF220,000	CHF90,000	CHF40,000	CHF10,000	CHF15,000
% uncollectible		1%	4%	5%	8%	10%
Estimated Bad debts	CHF 10,100	CHF 2,200	CHF 3,600	CHF 2,000	CHF 800	CHF 1,500

(b)	Bad Debts Expense..	7,100	
	Allowance for Doubtful Accounts (CHF10,100 – CHF3,000)		7,100
(c)	Allowance for Doubtful Accounts	1,600	
	Accounts Receivable..		1,600
(d)	Accounts Receivable...	700	
	Allowance for Doubtful Accounts.........................		700
	Cash	700	
	Accounts Receivable..		700

(e) When an allowance account is used, an adjusting journal entry is made at the end of each accounting period. This entry satisfies the expense recognition principle by recording the bad debts expense in the period in which the sales occur.

PROBLEM 8-5B

(a)	(1)	Dec. 31	Bad Debts Expense ($12,500 – $1,100)	11,400	
			Allowance for Doubtful Accounts		11,400
	(2)	Dec. 31	Bad Debts Expense ($600,000 X 2%)	12,000	
			Allowance for Doubtful Accounts		12,000
(b)	(1)	Dec. 31	Bad Debts Expense ($12,500 + $1,100)	13,600	
			Allowance for Doubtful Accounts		13,600
	(2)	Dec. 31	Bad Debts Expense	12,000	
			Allowance for Doubtful Accounts		12,000

(c)	Allowance for Doubtful Accounts	3,200	
	Accounts Receivable		3,200

<u>Note</u>: The entry is the same whether the amount of bad debts expense at the end of 2011 was estimated using the percentage of receivables or the percentage of sales method.

(d)	Bad Debts Expense	3,200	
	Accounts Receivable		3,200

(e) The advantages of the allowance method over the direct write-off method are:

(1) It attempts to match bad debts expense related to uncollectible accounts receivable with sales revenues on the income statement.

(2) It attempts to show the cash realizable value of the accounts receivable on the statement of financial position.

PROBLEM 8-6B

(a)

July	5	Accounts Receivable	7,200	
		Sales		7,200
	14	Cash (€1,000 – €30)	970	
		Service Charge Expense (€1,000 X 3%)	30	
		Sales		1,000
	14	Accounts Receivable	510	
		Interest Revenue		510
	15	Cash	12,200	
		Notes Receivable		12,000
		Interest Receivable (€12,000 X 10% X 45/360)		150
		Interest Revenue (€12,000 X 10% X 15/360)		50
	24	Accounts Receivable	30,450	
		Notes Receivable		30,000
		Interest Receivable (€30,000 X 9% X 36/360)		270
		Interest Revenue (€30,000 X 9% X 24/360)		180
	31	Interest Receivable (€15,000 X 12% X 1/12)	150	
		Interest Revenue		150

(b)

Notes Receivable

Date		Explanation	Ref.	Debit	Credit	Balance
July	1	Balance	✓			57,000
	15				12,000	45,000
	24				30,000	15,000

PROBLEM 8-6B (Continued)

Accounts Receivable

Date		Explanation	Ref.	Debit	Credit	Balance
July	5			7,200		7,200
	14			510		7,710
	24			30,450		38,160

Interest Receivable

Date		Explanation	Ref.	Debit	Credit	Balance
July	1	Balance	✓			420
	15				150	270
	24				270	0
	31	Adjusting		150		150

(c) Current assets

Notes receivable	€15,000
Accounts receivable	38,160
Interest receivable	150
Total receivables	€53,310

PROBLEM 8-7B

Jan. 5	Accounts Receivable—Kandle Company	10,800	
	Sales		10,800
Feb. 2	Notes Receivable	10,800	
	Accounts Receivable—Kandle Company		10,800
12	Notes Receivable	13,500	
	Sales		13,500
26	Accounts Receivable—Barrel Co.	7,000	
	Sales		7,000
Apr. 5	Notes Receivable	7,000	
	Accounts Receivable—Barrel Co.		7,000
12	Cash ($13,500 + $225)	13,725	
	Notes Receivable		13,500
	Interest Revenue ($13,500 X 10% X 2/12)		225
June 2	Cash ($10,800 + $360)	11,160	
	Notes Receivable		10,800
	Interest Revenue ($10,800 X 10% X 4/12)		360
July 5	Accounts Receivable—Barrel Co. ($7,000 + $140)	7,140	
	Notes Receivable		7,000
	Interest Revenue ($7,000 X 8% X 3/12)		140
15	Notes Receivable	12,000	
	Sales		12,000
Oct. 15	Allowance for Doubtful Accounts	12,000	
	Notes Receivable		12,000

BYP 8-1 FINANCIAL REPORTING PROBLEM

(a)

SEK COMPANY
Accounts Receivable Aging Schedule
May 31, 2011

	Proportion of Total	Amount in Category	Probability of Non-Collection	Estimated Uncollectible Amount
Not yet due	.620	$ 868,000	.02	$17,360
Less than 30 days past due	.200	280,000	.04	11,200
30 to 60 days past due	.090	126,000	.06	7,560
61 to 120 days past due	.050	70,000	.09	6,300
121 to 180 days past due	.025	35,000	.25	8,750
Over 180 days past due	.015	21,000	.70	14,700
	1.000	$1,400,000		$65,870

(b)

SEK COMPANY
Analysis of Allowance for Doubtful Accounts
May 31, 2011

June 1, 2010 balance	$ 29,500
Bad debts expense accrual ($2,900,000 X .045)	130,500
Balance before write-offs of bad accounts	160,000
Write-offs of bad accounts	102,000
Balance before year-end adjustment	58,000
Estimated uncollectible amount	65,870
Additional allowance needed	$ 7,870

Bad Debts Expense	7,870	
Allowance for Doubtful Accounts		7,870

BYP 8-1 (Continued)

(c) 1. Steps to Improve the Accounts Receivable Situation	2. Risks and Costs Involved
Establish more selective credit-granting policies, such as more restrictive credit requirements or more thorough credit investigations.	This policy could result in lost sales and increased costs of credit evaluation. The company may be all but forced to adhere to the prevailing credit-granting policies of the office equipment and supplies industry.
Establish a more rigorous collection policy either through external collection agencies or by its own personnel.	This policy may offend current customers and thus risk future sales. Increased collection costs could result from this policy.
Charge interest on overdue accounts. Insist on cash on delivery (cod) or cash on order (coo) for new customers or poor credit risks.	This policy could result in lost sales and increased administrative costs.

BYP 8-2 COMPARATIVE ANALYSIS PROBLEM

(a) 1. **Accounts receivable turnover ratio**

Cadbury	Nestlé
$\dfrac{£5,384}{(£1,067 + £1,197) \div 2}$	$\dfrac{CHF109,908}{(CHF13,442 + CHF14,890) \div 2}$
$\dfrac{£5,384}{£1,132} = 4.8$ times	$\dfrac{CHF109,908}{CHF14,166} = 7.8$ times

2. **Average collection period**

$\dfrac{365}{4.8} = 76$ days	$\dfrac{365}{7.8} = 46.8$ days

(b) Cadbury's average collection period far exceeds that of Nestlé. While this might be due to difficulties in collecting from customers, it also might be a least partially explained by our assumption that all receivables are trade receivables.

BYP 8-3 EXPLORING THE WEB

(a) Benefits of Factoring Receivables

Factoring is a flexible financial solution that can help your business be more competitive while improving your cash flow, credit rating, and supplier discounts. Unlike traditional bank financing, factoring relies on the financial strength and credit worthiness of your customers, not you. You can use factoring services as much as you want or as little as you want. There are no obligations, no minimums, and no maximums. Here are the most common reasons businesses use factoring services:

Offer better terms to win more business. With factoring you can attract more business by offering better terms on your invoices. Most companies negotiate on price to win business in a competitive market, but with factoring you can negotiate with terms instead of price. To your customers, better terms can be more attractive than better prices. When using attractive terms to win business, you can build the cost of factoring into your costs of goods and services.

Example: A new customer may choose to do business with your company because you can offer NET 30 or NET 45 terms while your competitor (who isn't factoring) requires payment up front but has a 3% better price. If you factor the subsequent invoice at a discount of 3%, you have leveraged factoring services to win the business at no extra cost and improved your cash flow at the same time.

Improve cash flow without additional debt. Eliminate long billing cycles. Receive cash for your outstanding invoices in 24 hours or less. No new debt is created. Factoring is not a loan. This allows you to preserve your financial leverage to take on new debt.

Customer Credit Services. Reduce bad debt expense, streamline credit approvals for new customers, improve decision-making on new business, and reduce administrative costs.

BYP 8-3 (Continued)

Accounts Receivable Management. Reduce administrative costs, improve customer relationships, improve receivable turns, improve accounting, and redirect critical resources to marketing and production.

Flexibility. Factor as much as you want or as little as you want. You decide. No obligations. No binding contracts. There are no minimums and no maximums in the amount you can factor. Funding is based on the strength of your customers.

(b) Factoring fees are based on a per Diem Rate. The factor will assess the risk of the particular situation and determine a discount rate. This usually ranges from 3% to 9% of the gross invoices sold, and is the fee for the duties the factor assumes and the cost of using their money. The sooner a receivable is paid, the lower the discount rate.

(c) Upon approval, the factor will advance the manufacturer 70%–90% of the total value of their invoices. This percentage is called the Advance Rate, and the cash is often delivered within 24 hours after an application is received.

The rest of the cash minus the factor's fees is then returned to the manufacturer as the receivables are collected. If the manufacturer's customers pay slowly, the discount rates that apply grow accordingly larger.

BYP 8-4 DECISION MAKING ACROSS THE ORGANIZATION

(a)

	2011	2010	2009
Net credit sales	$500,000	$600,000	$400,000
Credit and collection expenses			
Collection agency fees	$ 2,450	$ 2,500	$ 2,400
Salary of accounts receivable clerk	4,100	4,100	4,100
Uncollectible accounts	8,000	9,600	6,400
Billing and mailing costs	2,500	3,000	2,000
Credit investigation fees	750	900	600
Total	$ 17,800	$ 20,100	$ 15,500
Total expenses as a percentage of net credit sales	3.56%	3.35%	3.88%

(b)

	2011	2010	2009
Average accounts receivable (5%)	$ 25,000	$ 30,000	$ 20,000
Investment earnings (8%)	$ 2,000	$ 2,400	$ 1,600
Total credit and collection expenses per above	$ 17,800	$ 20,100	$ 15,500
Add: Investment earnings*	2,000	2,400	1,600
Net credit and collection expenses	$ 19,800	$ 22,500	$ 17,100
Net expenses as a percentage of net credit sales	3.96%	3.75%	4.28%

*The investment earnings on the cash tied up in accounts receivable is an additional expense of continuing the existing credit policies.

(c) The analysis shows that the credit card fee of 4% of net credit sales will be higher than the percentage cost of credit and collection expenses in each year before considering the effect of earnings from other investment opportunities. However, after considering investment earnings, the credit card fee of 4% will be less than the company's percentage cost if annual net credit sales are less than $500,000.

BYP 8-4 (Continued)

Finally, the decision hinges on: (1) the accuracy of the estimate of investment earnings, (2) the expected trend in credit sales, and (3) the effect the new policy will have on sales. Nonfinancial factors include the effects on customer relationships of the alternative credit policies and whether the Maynes want to continue with the problem of handling their own accounts receivable.

BYP 8-5 COMMUNICATION ACTIVITY

Of course, this solution will differ from student to student. Important factors to look for would be definitions of the methods, how they are similar and how they differ. Also, look for use of good sentence structure, correct spelling, etc.

Example:

Dear Rene,

The three methods you asked about are methods of dealing with uncollectible accounts receivable. Two of them, percentage-of-sales and percentage-of-receivables, are "allowance" methods used to estimate the amount uncollectible. Under the percentage-of-sales basis, management establishes a percentage relationship between the amount of credit sales and expected losses from uncollectible accounts. This is based on past experience and anticipated credit policy. The percentage is then applied to either total credit sales or net credit sales of the current year. This basis of estimating emphasizes the matching of expenses with revenues.

Under the percentage-of-receivables basis, management establishes a percentage relationship between the amount of receivables and expected losses from uncollectible accounts. Customer accounts are classified by the length of time they have been unpaid. This basis emphasizes cash realizable value of receivables and is therefore deemed a "statement of financial position" approach.

The direct write-off method does not estimate losses and an allowance account is not used. Instead, when an account is determined to be uncollectible, it is written off directly to Bad Debts Expense. Unless bad debt losses are insignificant, this method is not acceptable for financial reporting purposes.

Sincerely,

BYP 8-6 ETHICS CASE

(a) The stakeholders in this situation are:

- **The president of Ruiz Co.**
- **The controller of Ruiz Co.**
- **The shareholders.**

(b) Yes. The controller is posed with an ethical dilemma—should he/she follow the president's "suggestion" and prepare misleading financial statements (understated net income) or should he/she attempt to stand up to and possibly anger the president by preparing a fair (realistic) income statement.

(c) Ruiz Co.'s growth rate should be a product of fair and accurate financial statements, not vice versa. That is, one should not prepare financial statements with the objective of achieving or sustaining a predetermined growth rate. The growth rate should be a product of management and operating results, not of creative accounting.

CHAPTER 9

Plant Assets, Natural Resources, and Intangible Assets

ASSIGNMENT CLASSIFICATION TABLE

Study Objectives	Questions	Brief Exercises	Do It!	Exercises	A Problems	B Problems
1. Describe how the cost principle applies to plant assets.	1, 2, 3	1, 2	1	1, 2, 3	1A	1B
2. Explain the concept of depreciation.	4, 5		2	4		
3. Compute periodic depreciation using different methods.	6, 7, 8, 24, 25, 26	3, 4, 5, 6, 7		5, 6, 7, 8	2A, 3A, 4A, 5A	2B, 3B, 4B, 5B
4. Describe the procedure for revising periodic depreciation.	9, 10	8, 9		9, 10	4A	4B
5. Distinguish between revenue and capital expenditures, and explain the entries for each.	11, 27	10				
6. Explain how to account for the disposal of a plant asset.	12, 13	11, 12	3	11, 12	5A, 6A	5B, 6B
7. Compute periodic depletion of extractable natural resources.	14, 15	13	4	13		
8. Explain the basic issues related to accounting for intangible assets.	16, 17, 18, 19, 20, 21, 22	14, 15	4	14, 15	7A, 8A	7B, 8B
9. Indicate how plant assets, natural resources, and intangible assets are reported.	23	16, 17		16	5A, 7A, 9A	5B, 7B, 9B
*10. Explain how to account for the exchange of plant assets.	28, 29	18, 19		17, 18		

ASSIGNMENT CHARACTERISTICS TABLE

Problem Number	Description	Difficulty Level	Time Allotted (min.)
1A	Determine acquisition costs of land and building.	Simple	20–30
2A	Compute depreciation under different methods.	Simple	30–40
3A	Compute depreciation under different methods.	Moderate	30–40
4A	Calculate revisions to depreciation expense.	Moderate	20–30
5A	Journalize a series of equipment transactions related to purchase, sale, retirement, and depreciation.	Moderate	40–50
6A	Record disposals.	Simple	30–40
7A	Prepare entries to record transactions related to acquisition and amortization of intangibles; prepare the intangible assets section.	Moderate	30–40
8A	Prepare entries to correct errors made in recording and amortizing intangible assets.	Moderate	30–40
9A	Calculate and comment on asset turnover ratio.	Moderate	5–10
1B	Determine acquisition costs of land and building.	Simple	20–30
2B	Compute depreciation under different methods.	Simple	30–40
3B	Compute depreciation under different methods.	Moderate	30–40
4B	Calculate revisions to depreciation expense.	Moderate	20–30
5B	Journalize a series of equipment transactions related to purchase, sale, retirement, and depreciation.	Moderate	40–50
6B	Record disposals.	Simple	30–40
7B	Prepare entries to record transactions related to acquisition and amortization of intangibles; prepare the intangible assets section.	Moderate	30–40
8B	Prepare entries to correct errors made in recording and amortizing intangible assets.	Moderate	30–40
9B	Calculate and comment on asset turnover ratio.	Moderate	5–10

WEYGANDT IFRS 1E
CHAPTER 9
PLANT ASSETS, NATURAL RESOURCES, AND INTANGIBLE ASSETS

Number	SO	BT	Difficulty	Time (min.)
BE1	1	AP	Simple	2–4
BE2	1	AP	Simple	1–2
BE3	3	AP	Simple	2–4
BE4	3	E	Moderate	4–6
BE5	3	AP	Simple	4–6
BE6	3	AP	Simple	2–4
BE7	3	AP	Simple	4–6
BE8	4	AN	Moderate	4–6
BE9	4	AN	Moderate	4–6
BE10	5	AP	Simple	2–4
BE11	6	AP	Simple	4–6
BE12	6	AP	Simple	4–6
BE13	7	AP	Simple	4–6
BE14	8	AP	Simple	2–4
BE15	8	AP	Simple	4–6
BE16	9	AP	Simple	4–6
BE17	9	AP	Simple	2–4
*BE18	10	AP	Simple	4–6
*BE19	10	AP	Simple	4–6
DI1	1	C	Simple	4–6
DI2	2	AP	Simple	2–4
DI3	6	AP	Simple	6–8
DI4	7, 8	K	Simple	2–4
EX1	1	C	Simple	6–8
EX2	1	AP	Simple	4–6
EX3	1	AP	Simple	4–6
EX4	2	C	Simple	4–6
EX5	3	AP	Simple	6–8
EX6	3	AP	Simple	8–10
EX7	3	AP	Simple	10–12
EX8	3	AP	Simple	8–10
EX9	4	AN	Moderate	8–10
EX10	4	AP	Moderate	6–8

PLANT ASSETS, NATURAL RESOURCES, AND INTANGIBLE ASSETS (Continued)

Number	SO	BT	Difficulty	Time (min.)
EX11	6	AP	Moderate	8–10
EX12	6	AP	Moderate	10–12
EX13	7	AP	Simple	6–8
EX14	8	AP	Simple	4–6
EX15	8	AP	Simple	8–10
EX16	9	AP	Simple	2–4
EX17	10	AP	Moderate	8–10
EX18	10	AP	Moderate	8–10
P1A	1	C	Simple	20–30
P2A	3	AP	Simple	30–40
P3A	3	AN	Moderate	30–40
P4A	3, 4	AP	Moderate	20–30
P5A	3, 6, 9	AP	Moderate	40–50
P6A	6	AP	Simple	30–40
P7A	8, 9	AP	Moderate	30–40
P8A	8	AP	Moderate	30–40
P9A	9	AN	Moderate	5–10
P1B	1	C	Simple	20–30
P2B	3	AP	Simple	30–40
P3B	3	AN	Moderate	30–40
P4B	3, 4	AP	Moderate	20–30
P5B	3, 6, 9	AP	Moderate	40–50
P6B	6	AP	Simple	30–40
P7B	8, 9	AP	Moderate	30–40
P8B	8	AP	Moderate	30–40
P9B	9	AN	Moderate	5–10
BYP1	3, 8	AN	Simple	15–20
BYP2	9	AN, E	Simple	10–15
BYP3	2, 3	C	Simple	10–15
BYP4	3	AP, E	Moderate	20–25
BYP5	7	C	Simple	5–10
BYP6	4	E	Simple	10–15

BLOOM'S TAXONOMY TABLE

Correlation Chart between Bloom's Taxonomy, Study Objectives and End-of-Chapter Exercises and Problems

Study Objective	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
1. Describe how the cost principle applies to plant assets.		Q9-1 E9-1 Q9-2 P9-1A Q9-3 P9-1B DI9-1	BE9-1 E9-2 BE9-2 E9-3			
2. Explain the concept of depreciation.	Q9-5	Q9-4 E9-4	DI9-2			
3. Compute periodic depreciation using different methods.		Q9-6 Q9-7 Q9-8 Q9-24 Q9-25 Q9-26	BE9-3 E9-6 P9-5A BE9-4 E9-7 P9-2B BE9-5 E9-8 P9-4B BE9-6 P9-2A P9-5B BE9-7 P9-4A E9-5	P9-3A P9-3B		BE9-4
4. Describe the procedure for revising periodic depreciation.		Q9-9 Q9-10	E9-10 P9-4A P9-4B	BE9-8 BE9-9 E9-9		
5. Distinguish between revenue and capital expenditures, and explain the entries for each.		Q9-11 Q9-27	BE9-10			
6. Explain how to account for the disposal of a plant asset.	Q9-12	Q9-13	BE9-11 E9-11 P9-6A BE9-12 E9-12 P9-5B DI9-3 P9-5A P9-6B			
7. Compute periodic depletion of extractable natural resources.	Q9-14 DI9-4	Q9-15	BE9-13 E9-13			
8. Explain the basic issues related to accounting for intangible assets.	Q9-20	Q9-16 Q9-21 Q9-17 Q9-22 Q9-18 DI9-4 Q9-19	BE9-14 P9-7A BE9-15 P9-8A E9-14 P9-7B E9-15 P9-8B			
9. Indicate how plant assets, natural resources, and intangible assets are reported.			Q9-23 E9-16 P9-5B BE9-16 P9-5A P9-7B BE9-17 P9-7A	P9-9A P9-9B		
*10. Explain how to account for the exchange of plant assets.	Q9-28	Q9-29	BE9-18 E9-17 BE9-19 E9-18			
Broadening Your Perspective		Exploring the Web Communication	Decision Making Across the Organization	Financial Reporting Comp. Analysis		Comp. Analysis Decision Making Across the Organization Ethics Case

ANSWERS TO QUESTIONS

1. For plant assets, the cost principle means that cost consists of all expenditures necessary to acquire the asset and make it ready for its intended use.

2. Examples of land improvements include driveways, parking lots, fences, and underground sprinklers.

3. (a) When only the land is to be used, all demolition and removal costs of the building less any proceeds from salvaged materials are necessary expenditures to make the land ready for its intended use.
(b) When both the land and building are to be used, necessary costs of the building include remodeling expenditures and the cost of replacing or repairing the roofs, floors, wiring, and plumbing.

4. You should explain to the president that depreciation is a process of allocating the cost of a plant asset to expense over its service (useful) life in a rational and systematic manner. Recognition of depreciation is not intended to result in the accumulation of cash for replacement of the asset.

5. (a) Residual value, also called salvage value, is the expected value of the asset at the end of its useful life.
(b) Residual value is used in determining depreciation in each of the methods except the declining-balance method.

6. (a) Useful life is expressed in years under the straight-line method and in units of activity under the units-of-activity method.
(b) The pattern of periodic depreciation expense over useful life is constant under the straight-line method and variable under the units-of-activity method.

7. The effects of the three methods on annual depreciation expense are: Straight-line—constant amount; units of activity—varying amount; declining-balance—decreasing amounts.

8. Component depreciation is a method of allocating the cost of a plant asset into separate parts based on the estimated useful lives of each component. IFRS requires an entity to use component depreciation whenever significant parts of a plant asset have significantly different useful lives.

9. A revision of depreciation is made in current and future years but not retroactively. The rationale is that continual restatement of prior periods would adversely affect confidence in the financial statements.

10. Revaluation is an accounting procedure that adjusts plant assets to fair value at the reporting date. Revaluation must be applied annually to assets that are experiencing rapid price changes.

11. Revenue expenditures are ordinary repairs made to maintain the operating efficiency and productive life of the asset. Capital expenditures are additions and improvements made to increase operating efficiency, productive capacity, or useful life of the asset. Revenue expenditures are recognized as expenses when incurred; capital expenditures are generally debited to the plant asset affected.

12. In a sale of plant assets, the book value of the asset is compared to the proceeds received from the sale. If the proceeds of the sale exceed the book value of the plant asset, a gain on disposal occurs. If the proceeds of the sale are less than the book value of the plant asset sold, a loss on disposal occurs.

13. The plant asset and its accumulated depreciation should continue to be reported on the statement of financial position without further depreciation adjustment until the asset is retired. Reporting the asset and related accumulated depreciation on the statement of financial position informs the reader of the financial statements that the asset is still in use. However, once an asset is fully depreciated, even if it is still being used, no additional depreciation should be taken. In no situation can the accumulated depreciation on the plant asset exceed its cost.

14. Extractable natural resources consist of underground deposits of oil, gas, and minerals. These long-lived productive assets have two distinguishing characteristics: they are physically extracted in operations in or near the earth's crust, and they are replaceable only by an act of nature.

15. Depletion is the allocation of the cost of extractable resources to expense in a rational and systematic manner over the resource's useful life. It is computed by multiplying the depletion cost per unit by the number of units extracted and sold.

16. The terms depreciation, depletion, and amortization are all concerned with allocating the cost of an asset to expense over the periods benefited. Depreciation refers to allocating the cost of a plant asset to expense, depletion to recognizing the cost of an extractable resource as expense, and amortization to allocating the cost of an intangible asset to expense.

17. The intern is not correct. The cost of an intangible asset should be amortized over that asset's useful life (the period of time when operations are benefited by use of the asset). In addition, some intangibles have indefinite lives and therefore are not amortized at all.

18. The favorable attributes which could result in goodwill include exceptional management, desirable location, good customer relations, skilled employees, high-quality products, and harmonious relations with labor unions.

19. Goodwill is the value of many favorable attributes that are intertwined in the business enterprise. Goodwill can be identified only with the business as a whole and, unlike other assets, cannot be sold separately. Goodwill can only be sold if the entire business is sold. And, if goodwill appears on the statement of financial position, it means the company has purchased another company for more than the fair value of its net assets.

20. Goodwill is recorded only when there is a transaction that involves the purchase of an entire business. Goodwill is the excess of cost over the fair value of the net assets (assets less liabilities) acquired. The recognition of goodwill without an exchange transaction would lead to subjective valuations which would reduce the reliability of financial statements.

21. Research and development costs present several accounting problems. It is sometimes difficult to assign the costs to specific projects, and there are uncertainties in identifying the extent and timing of future benefits. As a result, IFRS requires that research costs be recorded as an expense when incurred. Development costs incurred prior to technological feasibility are also expensed but development costs incurred after technological feasibility are capitalized.

22. Both types of development expenditures relate to the creation of new products but one is expensed and the other is capitalized. Development costs incurred before a new product achieves technological feasibility are recorded as development expenses and appear as part of operating expenses on the income statement.

Cost incurred after technological feasibility are recorded as development costs and appear as an intangible asset on the statement of financial position.

23. McDonald's asset turnover ratio is computed as follows:

$$\frac{\text{Net sales}}{\text{Average total assets}} = \frac{\$20.5 \text{ billion}}{\$28.9 \text{ billion}} = .71 \text{ times}$$

24. Since Resco uses the straight-line depreciation method, its depreciation expense will be lower in the early years of an asset's useful life as compared to using an accelerated method. Yapan's depreciation expense in the early years of an asset's useful life will be higher as compared to the straight-line method. Resco's net income will be higher than Yapan's in the first few years of the asset's useful life. And, the reverse will be true late in an asset's useful life.

25. Yes, tax regulations often allow a company to use a different depreciation method on the tax return than is used in preparing financial statements. Lopez Corporation uses an accelerated depreciation method for tax purposes to minimize its income taxes and thereby the cash outflow for taxes.

26. By selecting a longer estimated useful life, May Corp. is spreading the plant asset's cost over a longer period of time. The depreciation expense reported in each period is lower and net income is higher. Won's choice of a shorter estimated useful life will result in higher depreciation expense reported in each period and lower net income.

27. Expensing these costs will make current period income lower but future period income higher because there will be no additional depreciation expense in future periods. If the costs are ordinary repairs, they should be expensed.

***28.** When assets are exchanged, the gain or loss on disposal is computed as the difference between the book value and the fair value of the asset given up at the time of exchange.

***29.** Yes, Tatum should recognize a gain equal to the difference between the fair value of the old machine and its book value. If the fair value of the old machine is less than its book value, Tatum should recognize a loss equal to the difference between the two amounts.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 9-1

All of the expenditures should be included in the cost of the land. Therefore, the cost of the land is $81,000, or ($70,000 + $3,000 + $2,500 + $2,000 + $3,500).

BRIEF EXERCISE 9-2

The cost of the truck is £31,900 (cash price £30,000 + sales tax £1,500 + painting and lettering £400). The expenditures for insurance and motor vehicle license should not be added to the cost of the truck.

BRIEF EXERCISE 9-3

Depreciable cost of $36,000, or ($42,000 – $6,000). With a four-year useful life, annual depreciation is $9,000, or ($36,000 ÷ 4). Under the straight-line method, depreciation is the same each year. Thus, depreciation is $9,000 for both the first and second years.

BRIEF EXERCISE 9-4

It is likely that management requested this accounting treatment to boost reported net income. Land is not depreciated; thus, by reporting land at HK$1,200,000 above its actual value the company increased yearly income by HK$60,000, $\left(\frac{\text{HK\$1,200,000}}{\text{20 years}}\right)$ **or the reduction in depreciation expense. This practice is not ethical because management is knowingly misstating asset values.**

BRIEF EXERCISE 9-5

The declining balance rate is 50%, or (25% X 2) and this rate is applied to book value at the beginning of the year. The computations are:

	Book Value	X	Rate	=	Depreciation
Year 1	$42,000		50%		$21,000
Year 2	($42,000 – $21,000)		50%		$10,500

BRIEF EXERCISE 9-6

The depreciation cost per unit is 22 cents per mile computed as follows:

Depreciable cost ($33,500 – $500) ÷ 150,000 = $.22
Year 1 30,000 miles X $.22 = $6,600
Year 2 20,000 miles X $.22 = $4,400

BRIEF EXERCISE 9-7

Warehouse component:	($280,000 – $40,000)/20	= $12,000
HVAC component:	$40,000/10	= $4,000

Total component depreciation in first year $16,000

BRIEF EXERCISE 9-8

Book value, 1/1/11	€20,000
Less: Salvage value	2,000
Depreciable cost	€18,000
Remaining useful life	4 years
Revised annual depreciation (€18,000 ÷ 4)	€ 4,500

BRIEF EXERCISE 9-9

(a)	Accumulated Depreciation—Plant Assets	60,000	
	Plant Assets		20,000
	Revaluation Surplus		40,000
	(To record revaluation of plant assets)		
(b)	Accumulated Depreciation—Plant Assets	60,000	
	Revaluation Surplus	20,000	
	Plant Assets		80,000
	(To record revaluation of plant assets)		

BRIEF EXERCISE 9-10

1.	Repair Expense	45	
	Cash		45
2.	Delivery Truck	400	
	Cash		400

BRIEF EXERCISE 9-11

(a)	Accumulated Depreciation—Delivery Equipment	41,000	
	Delivery Equipment		41,000
(b)	Accumulated Depreciation—Delivery Equipment	39,000	
	Loss on Disposal	2,000	
	Delivery Equipment		41,000

Cost of delivery equipment	CHF41,000
Less accumulated depreciation	39,000
Book value at date of disposal	2,000
Proceeds from sale	0
Loss on disposal	CHF 2,000

BRIEF EXERCISE 9-12

(a)	Depreciation Expense—Office Equipment	5,250	
	Accumulated Depreciation—Office Equipment		5,250
(b)	Cash	20,000	
	Accumulated Depreciation—Office Equipment	47,250	
	Loss on Disposal	4,750	
	Office Equipment		72,000

BRIEF EXERCISE 9-12 (Continued)

Cost of office equipment	$72,000
Less accumulated depreciation	47,250*
Book value at date of disposal	24,750
Proceeds from sale	20,000
Loss on disposal	$ 4,750

*$42,000 + $5,250

BRIEF EXERCISE 9-13

(a) Depletion cost per unit = ¥7,000,000 ÷ 35,000,000 = ¥.20 depletion cost per ton
¥.20 X 6,000,000 = ¥1,200,000

Depletion Expense	1,200,000	
Accumulated Depletion		1,200,000

(b)

Ore mine	¥7,000,000	
Less: Accumulated depletion	1,200,000	¥5,800,000

BRIEF EXERCISE 9-14

(a)

Amortization Expense—Patent (R$120,000 ÷ 10)	12,000	
Patents		12,000

(b) Intangible Assets

Patents	R$108,000

BRIEF EXERCISE 9-15

Research Expense	300,000	
Development Expense	400,000	
Development Costs	200,000	
Cash		900,000
(To record research and development costs)		

BRIEF EXERCISE 9-16

SPAIN COMPANY
Statement of Financial Position (partial)
December 31, 2011

Intangible assets			
Goodwill			$410,000
Property, plant, and equipment			
Coal mine	$ 500,000		
Less: Accumulated depletion	108,000	$392,000	
Buildings	1,100,000		
Less: Accumulated depreciation	650,000	450,000	
Total property, plant, and equipment			842,000

BRIEF EXERCISE 9-17

$$\$61.5 \div \left(\frac{\$37.3 + \$44.6}{2}\right) = 1.50 \text{ times}$$

*BRIEF EXERCISE 9-18

Delivery Equipment (new)	24,000	
Accumulated Depreciation—Delivery Equipment	30,000	
Loss on Disposal	12,000	
Delivery Equipment (old)		61,000
Cash		5,000

*BRIEF EXERCISE 9-18 (Continued)

Fair value of old delivery equipment	$19,000
Cash paid	5,000
Cost of new delivery equipment	$24,000

Fair value of old delivery equipment	$19,000
Book value of old delivery equipment ($61,000 – $30,000)	31,000
Loss on disposal	$12,000

*BRIEF EXERCISE 9-19

Delivery Equipment (new)	43,000	
Accumulated Depreciation—Delivery Equipment	30,000	
Gain on Disposal		7,000
Delivery Equipment (old)		61,000
Cash		5,000

Fair value of old delivery equipment	$38,000
Cash paid	5,000
Cost of new delivery equipment	$43,000

Fair value of old delivery equipment	$38,000
Book value of old delivery equipment ($61,000 – $30,000)	31,000
Gain on disposal	$ 7,000

SOLUTIONS FOR DO IT! REVIEW EXERCISES

DO IT! 9-1

The following four items are expenditures necessary to acquire the truck and get it ready for use:

Negotiated purchase price	£24,000
Installation of special shelving	1,100
Painting and lettering	900
Sales tax	1,300
Total paid	£27,300

Thus, the cost of the truck is £27,300. The payments for the motor vehicle license and for the insurance are operating costs and are expensed in the first year of the truck's life.

DO IT! 9-2

$$\text{Depreciation expense} = \frac{\text{Cost} - \text{Residual value}}{\text{Useful life}} = \frac{\$15{,}000 - \$1{,}000}{8 \text{ years}} = \$1{,}750$$

The entry to record the first year's depreciation would be:

Depreciation Expense	1,750	
Accumulated Depreciation		1,750
(To record annual depreciation on mower)		

DO IT! 9-3

(a) Sale of truck for cash at a gain:

Cash	26,000	
Accumulated Depreciation—Truck	28,000	
Truck		50,000
Gain on Disposal		4,000

DO IT! 9-3 (Continued)

(b) Sale of truck for cash at a loss:

Cash	15,000	
Loss on Disposal	7,000	
Accumulated Depreciation—Truck	28,000	
Truck		50,000

DO IT! 9-4

1. b. Intangible assets
2. d. Amortization
3. e. Franchise
4. f. Development costs
5. a. Goodwill
6. c. Development expenses

SOLUTIONS TO EXERCISES

EXERCISE 9-1

(a) Under the cost principle, the acquisition cost for a plant asset includes all expenditures necessary to acquire the asset and make it ready for its intended use. For example, the cost of factory machinery includes the purchase price, freight costs paid by the purchaser, insurance costs during transit, and installation costs.

(b)
1. **Land**
2. **Factory Machinery**
3. **Delivery Equipment**
4. **Land Improvements**
5. **Delivery Equipment**
6. **Factory Machinery**
7. **Prepaid Insurance**
8. **License Expense**

EXERCISE 9-2

1. **Factory Machinery**
2. **Truck**
3. **Factory Machinery**
4. **Land**
5. **Prepaid Insurance**
6. **Land Improvements**
7. **Land Improvements**
8. **Land**
9. **Building**

EXERCISE 9-3

(a) Cost of land

Cash paid	€80,000
Net cost of removing warehouse	
(€8,600 – €1,700)	6,900
Attorney's fee	1,100
Real estate broker's fee	5,000
Total	€93,000

(b) The architect's fee (€7,800) should be debited to the Building account. The cost of the driveways and parking lot (€14,000) should be debited to Land Improvements.

EXERCISE 9-4

1. False. Depreciation is a process of *cost allocation*, not *asset valuation*.
2. True.
3. False. The book value of a plant asset *may be quite different* from its fair value.
4. False. Depreciation applies to three classes of plant assets: land *improvements,* buildings, and equipment.
5. False. Depreciation does not apply to *land* because its usefulness and revenue-producing ability generally remain intact over time.
6. True.
7. False. Recognizing depreciation on an asset *does not result* in an accumulation of cash for replacement of the asset.
8. True.
9. False. Depreciation expense is reported on the income statement, and *accumulated depreciation is reported as a deduction from plant assets on the statement of financial position.*
10. False. *Three* factors affect the computation of depreciation: cost, useful life, and residual value *(also called salvage value)*.

EXERCISE 9-5

(a) Depreciation cost per unit is R$1.60 per mile
[(R$168,000 – R$8,000) ÷ 100,000].

(b)

	Computation				End of Year	
Year	Units of Activity X	Depreciation Cost/Unit	=	Annual Depreciation Expense	Accumulated Depreciation	Book Value
2011	26,000	R$1.60		R$41,600	R$ 41,600	R$126,400
2012	32,000	1.60		51,200	92,800	75,200
2013	25,000	1.60		40,000	132,800	35,200
2014	17,000	1.60		27,200	160,000	8,000

EXERCISE 9-6

(a) Straight-line method:

$$\left(\frac{\$120{,}000 - \$12{,}000}{5}\right) = \$21{,}600 \text{ per year.}$$

2011 depreciation = $21,600 X 3/12 = $5,400.

(b) Units-of-activity method:

$$\left(\frac{\$120{,}000 - \$12{,}000}{10{,}000}\right) = \$10.80 \text{ per hour.}$$

2011 depreciation = 1,700 hours X $10.80 = $18,360.

(c) Declining-balance method:

2011 depreciation = $120,000 X 40% X 3/12 = $ 12,000.
Book value January 1, 2012 = $120,000 – $12,000 = $108,000.
2012 depreciation = $108,000 X 40% = $ 43,200.

EXERCISE 9-7

(a) (1) 2011: (R$30,000 – R$2,000)/8 = R$3,500
2012: (R$30,000 – R$2,000)/8 = R$3,500

(2) (R$30,000 – R$2,000)/100,000 = R$0.28 per mile
2011: 15,000 X R$0.28 = R$4,200
2012: 12,000 X R$0.28 = R$3,360

(3) 2011: R$30,000 X 25% = R$7,500
2012: (R$30,000 – R$7,500) X 25% = R$5,625

(b) (1)

Depreciation Expense	3,500	
Accumulated Depreciation—Delivery Truck		3,500

(2)

Delivery Truck	R$30,000
Less: Accumulated Depreciation	3,500
	R$26,500

EXERCISE 9-8

Building depreciation:	$1,920,000*/40 years =	$ 48,000
Personal property depreciation:	$300,000/5 years =	60,000
Land improvements depreciation:	$180,000/10 years =	18,000
Total component depreciation		$126,000

*$2,400,000 – $300,000 – $180,000 = $1,920,000

EXERCISE 9-9

(a)

Type of Asset		Building	Warehouse
Book value, 1/1/11		$686,000	$75,000
Less: Residual value		37,000	3,600
Depreciable cost	(a)	$649,000	$71,400
Remaining useful life in years	(b)	44	15
Revised annual depreciation (a) ÷ (b)		$ 14,750	$ 4,760

EXERCISE 9-9 (Continued)

(b)	Dec. 31	Depreciation Expense—Building	14,750	
		Accumulated Depreciation—Building		14,750

EXERCISE 9-10

(a)	Depreciation Expense	70,000	
	Accumulated Depreciation—Plant Assets		70,000
	(To record depreciation expense)		
(b)	Accumulated Depreciation—Plant Assets	70,000	
	Plant Assets		30,000
	Revaluation Surplus		40,000
	(To adjust the plant assets to fair value and record revaluation surplus)		
(c)	Depreciation Expense	80,000*	
	Accumulated Depreciation—Plant Assets		80,000
	(To record depreciation expense)		

*$350,000 – $30,000 = $320,000; $320,000/4 years = $80,000

EXERCISE 9-11

Jan. 1	Accumulated Depreciation—Machinery	62,000	
	Machinery		62,000
June 30	Depreciation Expense	4,000	
	Accumulated Depreciation—Computer (£40,000 X 1/5 X 6/12)		4,000
30	Cash	14,000	
	Accumulated Depreciation—Computer (£40,000 X 3/5 = £24,000; £24,000 + £4,000)	28,000	
	Gain on Disposal [£14,000 – (£40,000 – £28,000)]		2,000
	Computer		40,000

EXERCISE 9-11 (Continued)

Dec.	31	Depreciation Expense	6,000	
		Accumulated Depreciation—Truck [(£39,000 – £3,000) X 1/6]		6,000
	31	Loss on Disposal	9,000	
		Accumulated Depreciation—Truck [(£39,000 – £3,000) X 5/6]	30,000	
		Delivery Truck		39,000

EXERCISE 9-12

(a)	Cash	28,000	
	Accumulated Depreciation—Equipment [($50,000 – $5,000) X 3/5]	27,000	
	Equipment		50,000
	Gain on Disposal		5,000
(b)	Depreciation Expense [($50,000 – $5,000) X 1/5 X 4/12]	3,000	
	Accumulated Depreciation—Equipment		3,000
	Cash	28,000	
	Accumulated Depreciation—Equipment ($27,000 + $3,000)	30,000	
	Equipment		50,000
	Gain on Disposal		8,000
(c)	Cash	11,000	
	Accumulated Depreciation—Equipment	27,000	
	Loss on Disposal	12,000	
	Equipment		50,000

EXERCISE 9-12 (Continued)

(d)	Depreciation Expense		
	[($50,000 – $5,000) ÷ 5 X 9/12]	6,750	
	Accumulated Depreciation—Equipment		6,750
	Cash	11,000	
	Accumulated Depreciation—Equipment		
	($27,000 + $6,750)	33,750	
	Loss on Disposal	5,250	
	Equipment		50,000

EXERCISE 9-13

(a)	Dec. 31	Depletion Expense	90,000	
		Accumulated Depletion		
		(100,000 X CHF.90)		90,000

Cost	(a)	CHF720,000
Units estimated	(b)	800,000 tons
Depletion cost per unit [(a) ÷ (b)]		CHF.90

(b) The costs pertaining to the unsold units are reported in current assets as part of inventory (20,000 X CHF.90 = CHF18,000).

EXERCISE 9-14

Dec. 31	Amortization Expense—Patent	12,000	
	Patents ($90,000 ÷ 5 X 8/12)		12,000

Note: No entry is made to amortize goodwill because it has an indefinite life.

EXERCISE 9-15

1/2/11	Patents	560,000	
	Cash		560,000
4/1/11	Goodwill	360,000	
	Cash		360,000
	(Part of the entry to record purchase of another company)		
7/1/11	Franchise	440,000	
	Cash		440,000
9/1/11	Research Expense	185,000	
	Cash		185,000
11/1/11	Development Expense	225,000	
	Cash		225,000
12/31/11	Amortization Expense—Patent ($560,000 ÷ 7)	80,000	
	Amortization Expense—Franchise [($440,000 ÷ 10) X 1/2]	22,000	
	Patents		80,000
	Franchise		22,000

Ending balances, 12/31/11:

Patent = $480,000 ($560,000 – $80,000).
Goodwill = $360,000
Franchise = $418,000 ($440,000 – $22,000).

EXERCISE 9-16

$$\text{Asset turnover ratio} = \frac{\$4{,}900{,}000}{\$1{,}400{,}000} = 3.5 \text{ times}$$

***EXERCISE 9-17**

(a)

Trucks (new)		53,000	
Accumulated Depreciation—Trucks (old)		22,000	
Loss on Disposal		6,000	
Trucks (old)			64,000
Cash			17,000

Cost of old trucks	£64,000
Less: Accumulated depreciation	22,000
Book value	42,000
Fair value of old trucks	36,000
Loss on disposal	£ 6,000

Fair value of old trucks	£36,000
Cash paid	17,000
Cost of new trucks	£53,000

(b)

Machine (new)		12,000	
Accumulated Depreciation—Machine (old)		4,000	
Gain on Disposal			1,000
Machine (old)			12,000
Cash			3,000

Cost of old machine	£12,000
Less: Accumulated depreciation	4,000
Book value	8,000
Fair value of old machine	9,000
Gain on disposal	£ 1,000

Fair value of old machine	£ 9,000
Cash paid	3,000
Cost of new machine	£12,000

*EXERCISE 9-18

(a)	Delivery Truck (new)	4,000	
	Loss on Disposal..	3,000	
	Accumulated Depreciation—Delivery		
	Truck (old)..	15,000	
	Delivery Truck (old)		22,000

Cost of old truck	$22,000
Less: Accumulated depreciation	15,000
Book value	7,000
Fair value of old truck	4,000
Loss on disposal	$ 3,000

(b)	Delivery Truck (new)	4,000	
	Accumulated Depreciation—Delivery		
	Trucks (old)..	8,000	
	Delivery Truck (old)		10,000
	Gain on Disposal		2,000

Cost of old truck	$10,000
Less: Accumulated depreciation	8,000
Book value	2,000
Fair value of old truck	4,000
Gain on Disposal	$ 2,000

Cost of new delivery truck*	$ 4,000

*Fair value of old truck

SOLUTIONS TO PROBLEMS

PROBLEM 9-1A

Item	Land	Building	Other Accounts	
1	€ 4,000			
2		€700,000		
3			€ 5,000	Property Taxes Expense
4	145,000			
5		35,000		
6		10,000		
7	2,000			
8			14,000	Land Improvements
9	15,000			
10	(3,500)			
	€162,500	€745,000		

PROBLEM 9-2A

(a)

Year	Computation	Accumulated Depreciation 12/31
	BUS 1	
2009	$ 90,000 X 20% = $18,000	$ 18,000
2010	$ 90,000 X 20% = $18,000	36,000
2011	$ 90,000 X 20% = $18,000	54,000
	BUS 2	
2009	$120,000 X 50% = $60,000	$ 60,000
2010	$ 60,000 X 50% = $30,000	90,000
2011	$ 30,000 X 50% = $15,000	105,000
	BUS 3	
2010	24,000 miles X $.60* = $14,400	$ 14,400
2011	34,000 miles X $.60 = $20,400	34,800

*$72,000 ÷ 120,000 miles = $.60 per mile.

(b)

	Year	Computation	Expense
		BUS 2	
1.	2009	$120,000 X 50% X 9/12 = $45,000	$45,000
2.	2010	$75,000 X 50% = $37,500	$37,500

PROBLEM 9-3A

(a) 1.

Purchase price		R$ 38,000
Sales tax		1,700
Shipping costs		150
Insurance during shipping		80
Installation and testing		70
Total cost of machine		R$ 40,000
Machine	40,000	
Cash		40,000

2.

Recorded cost		R$ 40,000
Less: Residual value		5,000
Depreciable cost		R$ 35,000
Years of useful life		÷ 5
Annual depreciation		R$ 7,000
Depreciation Expense	7,000	
Accumulated Depreciation		7,000

(b) 1.

Recorded cost	160,000
Less: Residual value	10,000
Depreciable cost	R$150,000
Years of useful life	÷ 4
Annual depreciation	R$ 37,500

2.

Year	Book Value at Beginning of Year	DDB Rate	Annual Depreciation Expense	Accumulated Depreciation
2011	R$160,000	50%*	R$80,000	R$ 80,000
2012	80,000	50%	40,000	120,000
2013	40,000	50%	20,000	140,000
2014	20,000	50%	10,000	150,000

*100% ÷ 4-year useful life = 25% X 2 = 50%.

PROBLEM 9-3A (Continued)

3. **Depreciation cost per unit = (R$160,000 – R$10,000)/125,000 units = R$1.20 per unit.**

   <u>Annual Depreciation Expense</u>

2011:	**R$1.20 X 45,000 =**	**R$54,000**
2012:	**1.20 X 35,000 =**	**42,000**
2013:	**1.20 X 25,000 =**	**30,000**
2014:	**1.20 X 20,000 =**	**24,000**

(c) **The declining-balance method reports the highest amount of depreciation expense the first year while the straight-line method reports the lowest. In the fourth year, the straight-line method reports the highest amount of depreciation expense while the declining-balance method reports the lowest.**

These facts occur because the declining-balance method is an accelerated depreciation method in which the largest amount of depreciation is recognized in the early years of the asset's life. If the straight-line method is used, the same amount of depreciation expense is recognized each year. Therefore, in the early years less depreciation expense will be recognized under this method than under the declining-balance method while more will be recognized in the later years.

The amount of depreciation expense recognized using the units-of-activity method is dependent on production, so this method could recognize more or less depreciation expense than the other two methods in any year depending on output.

No matter which of the three methods is used, the same total amount of depreciation expense will be recognized over the four-year period.

PROBLEM 9-4A

Year	Depreciation Expense	Accumulated Depreciation
2009	$13,500[a]	$13,500
2010	13,500	27,000
2011	10,800[b]	37,800
2012	10,800	48,600
2013	10,800	59,400
2014	12,800[c]	72,200
2015	12,800	85,000

[a] $$\frac{\$90{,}000 - \$9{,}000}{6 \text{ years}} = \$13{,}500$$

[b] $$\frac{\text{Book value} - \text{Residual value}}{\text{Remaining useful life}} = \frac{\$63{,}000 - \$9{,}000}{5 \text{ years}} = \$10{,}800$$

[c] $$\frac{\$30{,}600 - \$5{,}000}{2 \text{ years}} = \$12{,}800$$

PROBLEM 9-5A

(a)	Apr. 1	Land	2,130,000	
		Cash		2,130,000
	May 1	Depreciation Expense	26,000	
		Accumulated Depreciation—Equipment (€780,000 X 1/10 X 4/12)		26,000
	1	Cash	450,000	
		Accumulated Depreciation—Equipment	338,000	
		Equipment		780,000
		Gain on Disposal		8,000

Cost	€780,000
Accum. depreciation—equipment [(€780,000 X 1/10 X 4) + €26,000]	338,000
Book value	442,000
Cash proceeds	450,000
Gain on disposal	€ 8,000

June 1	Cash	1,500,000	
	Land		400,000
	Gain on Disposal		1,100,000
July 1	Equipment	2,000,000	
	Cash		2,000,000
Dec. 31	Depreciation Expense	50,000	
	Accumulated Depreciation—Equipment (€500,000 X 1/10)		50,000
31	Accumulated Depreciation—Equipment	500,000	
	Equipment		500,000

PROBLEM 9-5A (Continued)

Cost	€500,000
Accum. depreciation— equipment (€500,000 X 1/10 X 10)	500,000
Book value	€ 0

(b)	Dec. 31	Depreciation Expense	570,000	
		Accumulated Depreciation— Buildings .... (€28,500,000 X 1/50)		570,000
	31	Depreciation Expense	4,772,000	
		Accumulated Depreciation— Equipment		4,772,000

(€46,720,000* X 1/10)	€4,672,000
[(€2,000,000 X 1/10) X 6/12]	100,000
	€4,772,000

*(€48,000,000 – €780,000 – €500,000)

(c)

JIMENEZ COMPANY
Partial Statement of Financial Position
December 31, 2012

Plant Assets*		
Land		€ 5,730,000
Buildings	€28,500,000	
Less: Accumulated depreciation— buildings	12,670,000	15,830,000
Equipment	48,720,000	
Less: Accumulated depreciation— equipment	9,010,000	39,710,000
Total		€61,270,000

*See T-accounts which follow.

Land

Bal.	4,000,000	June 1	400,000
Apr. 1	2,130,000		
Bal.	5,730,000		

Buildings

Bal.	28,500,000		
Bal.	28,500,000		

Accumulated Depreciation—Buildings

		Bal.	12,100,000
		Dec. 31 adj.	570,000
		Bal.	12,670,000

Equipment

Bal.	48,000,000	May 1	780,000
July 1	2,000,000	Dec. 31	500,000
Bal.	48,720,000		

Accumulated Depreciation—Equipment

May 1	338,000	Bal.	5,000,000
Dec. 31	500,000	May 1	26,000
		Dec. 31	50,000
		Dec. 31 adj.	4,772,000
		Bal.	9,010,000

PROBLEM 9-6A

		Debit	Credit
(a)	Accumulated Depreciation—Office Furniture	50,000	
	Loss on Disposal	25,000	
	Office Furniture		75,000
(b)	Cash	21,000	
	Accumulated Depreciation—Office Furniture	50,000	
	Loss on Disposal	4,000	
	Office Furniture		75,000
(c)	Cash	31,000	
	Accumulated Depreciation—Office Furniture	50,000	
	Gain on Disposal		6,000
	Office Furniture		75,000

PROBLEM 9-7A

(a)	Jan. 2	Patents	45,000	
		Cash		45,000
	Jan.– June	Research Expense	140,000	
		Cash		140,000
	Sept. 1	Advertising Expense	50,000	
		Cash		50,000
	Oct. 1	Franchise	100,000	
		Cash		100,000
(b)	Dec. 31	Amortization Expense—Patents	12,000	
		Patents		12,000
		[($70,000 X 1/10) + ($45,000 X 1/9)]		
	31	Amortization Expense—Franchise	5,300	
		Franchise		5,300
		[($48,000 X 1/10) + ($100,000 X 1/50 X 3/12)]		

(c) Intangible Assets

Patents ($115,000 cost – $19,000 amortization) (1)	$ 96,000
Franchise ($148,000 cost – $24,500 amortization) (2)	123,500
Total intangible assets	$219,500

(1) Cost ($70,000 + $45,000); amortization ($7,000 + $12,000).
(2) Cost ($48,000 + $100,000); amortization ($19,200 + $5,300).

PROBLEM 9-8A

1.	Research Expense	86,000	
	Development Expense	50,000	
	Patents		136,000
	Patents	6,800	
	Amortization Expense—Patents [$9,800 – ($60,000 X 1/20)]		6,800
2.	Goodwill	920	
	Amortization Expense—Goodwill		920

Note: Goodwill should not be amortized because it has an indefinite life unlike Patents.

PROBLEM 9-9A

(a)

	Luó	Zhào
Asset turnover ratio	$\frac{\text{HK\$1,200,000}}{\text{HK\$2,500,000}}$ = .48 times	$\frac{\text{HK\$1,080,000}}{\text{HK\$2,000,000}}$ = .54 times

(b) Based on the asset turnover ratio, Zhào is more effective in using assets to generate sales. Its asset turnover ratio is almost 13% higher than Luó's ratio.

PROBLEM 9-1B

Item	Land	Building	Other Accounts	
1	$ 5,000			
2			$ 7,500	Property Taxes Expense
3		$500,000		
4		19,000		
5	100,000			
6			18,000	Land Improvements
7		9,000		
8			6,000	Land Improvements
9	17,000			
10	(3,500)			
	$118,500	$528,000		

PROBLEM 9-2B

(a)

Year	Computation	Accumulated Depreciation 12/31
	MACHINE 1	
2009	¥100,000 X 10% = ¥10,000	¥10,000
2010	¥100,000 X 10% = ¥10,000	20,000
2011	¥100,000 X 10% = ¥10,000	30,000
	MACHINE 2	
2009	¥150,000 X 25% = ¥37,500	¥37,500
2010	¥112,500 X 25% = ¥28,125	65,625
2011	¥ 84,375 X 25% = ¥21,094	86,719
	MACHINE 3	
2011	2,000 X (¥85,000 ÷ 25,000) = ¥6,800	¥ 6,800

(b)

	Year	Depreciation Computation	Expense
		MACHINE 2	
1.	2009	¥150,000 X 25% X 8/12 = ¥25,000	¥25,000
2.	2010	¥125,000 X 25% = ¥31,250	¥31,250

PROBLEM 9-3B

(a) 1.

Purchase price		$ 55,000
Sales tax		2,750
Shipping costs		100
Insurance during shipping		75
Installation and testing		75
Total cost of machine		$ 58,000
Machine	58,000	
Cash		58,000

2.

Recorded cost		$ 58,000
Less: Residual value		5,000
Depreciable cost		$ 53,000
Years of useful life		÷ 4
Annual depreciation		$ 13,250
Depreciation Expense	13,250	
Accumulated Depreciation		13,250

(b) 1.

Recorded cost	$100,000
Less: Residual value	10,000
Depreciable cost	$90,000
Years of useful life	÷ 4
Annual depreciation	$ 22,500

2.

Year	Book Value at Beginning of Year	DDB Rate	Annual Depreciation Expense	Accumulated Depreciation
2011	$100,000	50%*	$50,000	$50,000
2012	50,000	50%	25,000	75,000
2013	25,000	50%	12,500	87,500
2014	12,500	50%	2,500**	90,000

*100% ÷ 4-year useful life = 25% X 2 = 50%.
**$12,500 – $10,000 = $2,500.

PROBLEM 9-3B (Continued)

3. **Depreciation cost per unit = ($100,000 – $10,000)/25,000 units = $3.60 per unit.**

   <u>Annual Depreciation Expense</u>

2011:	$3.60 X 5,500 =	$19,800
2012:	3.60 X 7,000 =	25,200
2013:	3.60 X 8,000 =	28,800
2014:	3.60 X 4,500 =	16,200

(c) The units-of-activity method reports the lowest amount of depreciation expense the first year while the declining-balance method reports the highest. In the fourth year, the declining-balance method reports the lowest amount of depreciation expense while the straight-line method reports the highest.

These facts occur because the declining-balance method is an accelerated depreciation method in which the largest amount of depreciation is recognized in the early years of the asset's life. If the straight-line method is used, the same amount of depreciation expense is recognized each year. Therefore, in the early years less depreciation expense will be recognized under this method than under the declining-balance method while more will be recognized in the later years.

The amount of depreciation expense recognized using the units-of-activity method is dependent on production, so this method could recognize more or less depreciation expense than the other two methods in any year depending on output.

No matter which of the three methods is used, the same total amount of depreciation expense will be recognized over the four-year period.

PROBLEM 9-4B

Year	Depreciation Expense	Accumulated Depreciation
2009	£30,000[a]	£ 30,000
2010	30,000	60,000
2011	24,000[b]	84,000
2012	24,000	108,000
2013	24,000	132,000
2014	31,500[c]	163,500
2015	31,500	195,000

[a] $$\frac{£200{,}000 - £20{,}000}{6 \text{ years}} = £30{,}000$$

[b] $$\frac{\text{Book value} - \text{Residual value}}{\text{Remaining useful life}} = \frac{£140{,}000 - £20{,}000}{5 \text{ years}} = £24{,}000$$

[c] $$\frac{£68{,}000 - £5{,}000}{2 \text{ years}} = £31{,}500$$

PROBLEM 9-5B

(a)	Apr. 1	Land	1,200,000	
		Cash		1,200,000
	May 1	Depreciation Expense	14,000	
		Accumulated Depreciation—		
		Equipment		
		($420,000 X 1/10 X 4/12)		14,000
	1	Cash	240,000	
		Accumulated Depreciation—		
		Equipment	182,000	
		Equipment		420,000
		Gain on Disposal		2,000

Cost	$420,000
Accum. depreciation—	
equipment	182,000
[($420,000 X 1/10 X 4) + $14,000]	
Book value	238,000
Cash proceeds	240,000
Gain on disposal	$ 2,000

June 1	Cash	1,000,000	
	Land		340,000
	Gain on Disposal		660,000
July 1	Equipment	1,100,000	
	Cash		1,100,000
Dec. 31	Depreciation Expense	30,000	
	Accumulated Depreciation—		
	Equipment		
	($300,000 X 1/10)		30,000
31	Accumulated Depreciation—		
	Equipment	300,000	
	Equipment		300,000

Cost	$300,000
Accum. depreciation—equipment	300,000
($300,000 X 1/10 X 10)	
Book value	$ 0

(b)	Dec. 31	Depreciation Expense	400,000	
		Accumulated Depreciation—Buildings ($20,000,000 X 1/50)		400,000
	31	Depreciation Expense	2,983,000	
		Accumulated Depreciation—Equipment		2,983,000

($29,280,000* X 1/10)	$2,928,000
[($1,100,000 X 1/10) X 6/12]	55,000
	$2,983,000

*($30,000,000 – $420,000 – $300,000)

(c)

STARKEY COMPANY
Partial Statement of Financial Position
December 31, 2012

Plant Assets*		
Land		$ 2,860,000
Buildings	$20,000,000	
Less: Accumulated depreciation—buildings	8,400,000	11,600,000
Equipment	30,380,000	
Less: Accumulated depreciation—equipment	6,545,000	23,835,000
Total		$38,295,000

*See T-accounts which follow.

PROBLEM 9-5B (Continued)

Land

Bal.	2,000,000	June 1	340,000
Apr. 1	1,200,000		
Bal.	2,860,000		

Buildings

Bal.	20,000,000		
Bal.	20,000,000		

Accumulated Depreciation—Buildings

		Bal.	8,000,000
		Dec. 31 adj.	400,000
		Bal.	8,400,000

Equipment

Bal.	30,000,000	May 1	420,000
July 1	1,100,000	Dec. 31	300,000
Bal.	30,380,000		

Accumulated Depreciation—Equipment

May 1	182,000	Bal.	4,000,000
Dec. 31	300,000	May 1	14,000
		Dec. 31	30,000
		Dec. 31 adj.	2,983,000
		Bal.	6,545,000

PROBLEM 9-6B

(a)	Accumulated Depreciation—Delivery Equipment	26,000	
	Loss on Disposal	14,000	
	Delivery Equipment		40,000
(b)	Cash	29,000	
	Accumulated Depreciation—Delivery Equipment	26,000	
	Gain on Disposal		15,000
	Delivery Equipment		40,000
(c)	Cash	10,000	
	Accumulated Depreciation—Delivery Equipment	26,000	
	Loss on Disposal	4,000	
	Delivery Equipment		40,000

PROBLEM 9-7B

(a)	Jan. 2	Patents		45,000	
			Cash		45,000
	Jan.– June	Research Expense		230,000	
			Cash		230,000
	Sept. 1	Advertising Expense		125,000	
			Cash		125,000
	Oct. 1	Copyright		200,000	
			Cash		200,000
(b)	Dec. 31	Amortization Expense—Patents		15,000	
			Patents		15,000
			[($100,000 X 1/10) + ($45,000 X 1/9)]		
	31	Amortization Expense—Copyright		7,000	
			Copyright		7,000
			[($60,000 X 1/10) + ($200,000 X 1/50 X 3/12)]		

(c) Intangible Assets

Patents ($145,000 cost – $25,000 amortization) (1)	$120,000
Copyright ($260,000 cost – $31,000 amortization) (2)	229,000
Total intangible assets	$349,000

(1) Cost ($100,000 + $45,000); amortization ($10,000 + $15,000).
(2) Cost ($60,000 + $200,000); amortization ($24,000 + $7,000).

(d) The intangible assets of the company consist of two patents and two copyrights. One patent with a total cost of $145,000 is being amortized in two segments ($100,000 over 10 years and $45,000 over 9 years); the other patent was obtained at no recordable cost. A copyright with a cost of $60,000 is being amortized over 10 years; the other copyright with a cost of $200,000 is being amortized over 50 years.

PROBLEM 9-8B

1.	Development Expense	110,000	
	Patents		110,000
	Patents	5,500	
	Amortization Expense—Patents [TL8,000 – (TL50,000 X 1/20)]		5,500
2.	Goodwill	2,000	
	Amortization Expense—Goodwill		2,000

Note: Goodwill should not be amortized because it has an indefinite life unlike Patents.

PROBLEM 9-9B

(a)

	McLead Corp.	Gene Corp.
Asset turnover ratio	$\frac{\$1,100,000}{\$1,000,000}$ = 1.10 times	$\frac{\$990,000}{\$1,050,000}$ = .94 times

(b) Based on the asset turnover ratio, McLead Corp. is more effective in using assets to generate sales. Its asset turnover ratio is 17% higher than Gene's asset turnover ratio.

CHAPTER 9 COMPREHENSIVE PROBLEM SOLUTION

(a) 1. Equipment	16,800	
Cash		16,800
2. Depreciation Expense—Equipment	450	
Accumulated Depreciation—Equipment		450
Cash	3,500	
Accumulated Depreciation—Equipment	2,250	
Equipment		5,000
Gain on Disposal [$3,500 – ($5,000 – $2,250)]		750
3. Accounts Receivable	5,000	
Sales		5,000
Cost of Goods Sold	3,500	
Merchandise Inventory		3,500
4. Bad Debts Expense ($4,000 – $500)	3,500	
Allowance for Doubtful Accounts		3,500
5. Interest Receivable ($10,000 X .08 X 9/12)	600	
Interest Revenue		600
6. Insurance Expense ($3,600 X 4/6)	2,400	
Prepaid Insurance		2,400
7. Depreciation Expense—Building	4,000	
Accumulated Depreciation—Building [($150,000 – $30,000) ÷ 30]		4,000
8. Depreciation Expense—Equipment	9,900	
Accumulated Depreciation—Equipment [($55,000 – $5,500) ÷ 5]		9,900
9. Depreciation Expense—Equipment	2,000	
Accumulated Depreciation—Equipment [($16,800 – $1,800) ÷ 5] X 8/12		2,000

COMPREHENSIVE PROBLEM (Continued)

10. Amortization Expense—Patents ($9,000 ÷ 9)	**1,000**	
Patent		**1,000**
11. Salaries Expense	**2,200**	
Salaries Payable		**2,200**
12. Unearned Rent ($6,000 X 1/3)	**2,000**	
Rent Revenue		**2,000**
13. Interest Expense	**4,600**	
Interest Payable		
[($11,000 + $35,000) X .10]		**4,600**
14. Income Tax Expense	**15,000**	
Income Tax Payable		**15,000**

(b)

PINKERTON CORPORATION
Trial Balance
December 31, 2011

	Debits	Credits
Cash	$ 14,700	
Accounts Receivable	41,800	
Notes Receivable	10,000	
Interest Receivable	600	
Merchandise Inventory	32,700	
Prepaid Insurance	1,200	
Land	20,000	
Building	150,000	
Equipment	71,800	
Patent	8,000	
Allowance for Doubtful Accounts		$ 4,000
Accumulated Depreciation—Building		54,000
Accumulated Depreciation—Equipment		34,100
Accounts Payable		27,300
Salaries Payable		2,200
Unearned Rent		4,000
Notes Payable (short-term)		11,000
Interest Payable		4,600
Notes Payable (long-term)		35,000
Income Tax Payable		15,000
Share Capital—Ordinary		50,000
Retained Earnings		63,600
Dividends	12,000	
Sales		905,000
Interest Revenue		600
Rent Revenue		2,000
Gain on Disposal		750
Bad Debts Expense	3,500	
Cost of Goods Sold	633,500	
Depreciation Expense—Building	4,000	
Depreciation Expense—Equipment	12,350	
Insurance Expense	2,400	
Interest Expense	4,600	
Other Operating Expenses	61,800	
Amortization Expense—Patents	1,000	
Salaries Expense	112,200	
Income Tax Expense	15,000	
Total	$1,213,150	$1,213,150

COMPREHENSIVE PROBLEM (Continued)

(c)

PINKERTON CORPORATION
Income Statement
For the Year Ended December 31, 2011

Sales		$905,000
Cost of goods sold		633,500
Gross profit		271,500
Operating expenses		
Salaries expense	$112,200	
Other operating expenses	61,800	
Depreciation expense—equipment	12,350	
Depreciation expense—building	4,000	
Bad debts expense	3,500	
Insurance expense	2,400	
Amortization expense—patents	1,000	
Total operating expenses		197,250
Income from operations		74,250
Other income and expense		
Rent income	2,000	
Gain on disposal	750	
Interest revenue	600	3,350
Interest expense		4,600
Income before income taxes		73,000
Income tax expense		15,000
Net income		$ 58,000

PINKERTON CORPORATION
Retained Earnings Statement
For the Year Ending December 31, 2011

Retained earnings, 1/1/11	$ 63,600
Add: Net income	58,000
	121,600
Less: Dividends	12,000
Retained earnings, 12/31/11	$109,600

(d)

PINKERTON CORPORATION
Statement of Financial Position
December 31, 2011

Property, plant, and equipment			
Land		$ 20,000	
Building	$150,000		
Less: Accum. depr.—building	54,000	96,000	
Equipment	71,800		
Less: Accum. depr.—equipment	34,100	37,700	$153,700
Intangible assets			
Patent			8,000
Current assets			
Prepaid insurance		1,200	
Merchandise inventory		32,700	
Interest receivable		600	
Notes receivable		10,000	
Accounts receivable	41,800		
Less: Allowance for doubtful accounts	4,000	37,800	
Cash		14,700	97,000
Total assets			$258,700
Equity			
Share capital—ordinary		$ 50,000	
Retained earnings		109,600	$159,600
Non-current liabilities			
Notes payable (long-term)			35,000
Current liabilities			
Notes payable (short-term)		11,000	
Accounts payable		27,300	
Income tax payable		15,000	
Interest payable		4,600	
Unearned rent		4,000	
Salaries payable		2,200	64,100
Total equity and liabilities			$258,700

BYP 9-1 FINANCIAL REPORTING PROBLEM

(a) Property, plant, and equipment is reported net, book value, on the December 27, 2008, statement of financial position at £1,761,000,000. The cost of the property, plant, and equipment is £3,330,000,000 as shown in Note 16.

(b) Depreciation expense is calculated on a straight-line basis over an asset's estimated useful live. (see Note 1, item q).

(c) Depreciation expense was:

2008:	£161,000,000.	Amort: £35,000,000 in 2008
2007:	£138,000,000.	

(d) Cadbury's capital spending was:

2008:	£500,000,000.
2007:	£409,000,000.

(e) Cadbury's statement of financial position reports £2,288,000,000 for goodwill, £1,598,000,000 of acquisition intangibles, and £87,000,000 of software intangibles. In Note 15, the company indicates that acquisition intangibles consist of brands.

BYP 9-2 COMPARATIVE ANALYSIS PROBLEM

(a)

	Cadbury	Nestlé
Asset turnover ratio	£5,384 ÷ $\frac{£11,338 + £8,895}{2}$ = .53 times	CHF109,908 ÷ $\frac{CHF115,361 + CHF106,215}{2}$ = .99 times

(b) The asset turnover ratio measures how efficiently a company uses its assets to generate sales. It shows the dollars of sales generated by each dollar invested in assets. Nestlé's asset turnover ratio (.99) was 87% higher than Cadbury's (.53). Therefore, it can be concluded that Nestlé was more efficient during 2008 in utilizing assets to generate sales.

BYP 9-3 EXPLORING THE WEB

Answers will vary depending on the company selected.

BYP 9-4 DECISION MAKING ACROSS THE ORGANIZATION

(a) **Reimer Company—Straight-line method**

Annual Depreciation	
Building [($320,000 – $20,000) ÷ 40]	$ 7,500
Equipment [($110,000 – $10,000) ÷ 10]	10,000
Total annual depreciation	$17,500
Total accumulated depreciation ($17,500 X 3)	$52,500

Lingo Company—Double-declining-balance method

Year	Asset	Computation	Annual Depreciation	Accumulated Depreciation
2009	Building	$320,000 X 5%	$16,000	
	Equipment	$110,000 X 20%	22,000	$38,000
2010	Building	$304,000 X 5%	15,200	
	Equipment	$ 88,000 X 20%	17,600	32,800
2011	Building	$288,800 X 5%	14,440	
	Equipment	$ 70,400 X 20%	14,080	28,520
				$99,320

(b)

Year	Reimer Company Net Income	Lingo Company Net Income As Adjusted	Computations for Lingo Company
2009	$ 84,000	$ 88,500	$68,000 + $38,000 – $17,500 = $88,500
2010	88,400	91,300	$76,000 + $32,800 – $17,500 = $91,300
2011	90,000	96,020	$85,000 + $28,520 – $17,500 = $96,020
Total net income	$262,400	$275,820	

(c) As shown above, when the two companies use the same depreciation method, Lingo Company is more profitable than Reimer Company. When the two companies are using different depreciation methods, Lingo Company has more cash than Reimer Company for two reasons:

BYP 9-4 (Continued)

(1) its earnings are generating more cash than the earnings of Reimer Company, and (2) depreciation expense has no effect on cash. Cash generated by operations can be arrived at by adding depreciation expense to net income. If this is done, it can be seen that Lingo Company's operations generate more cash ($229,000 + $99,320 = $328,320) than Reimer Company's ($262,400 + $52,500 = $314,900). Based on the above analysis, Mrs. Vogts should buy Lingo Company. It not only is in a better financial position than Reimer Company, but it is also more profitable.

BYP 9-5 COMMUNICATION ACTIVITY

To: Instructor

From: Student

Re: American Exploration Company footnote

American Exploration Company accounts for its oil and gas activities using the successful efforts approach. Under this method, only the costs of successful exploration are included in the cost of the extractable resource, and the costs of unsuccessful explorations are expensed.

Depletion is determined using the units-of-activity method. Under this method, a depletion cost per unit is computed based on the total number of units expected to be extracted. Depletion expense for the year is determined by multiplying the units extracted and sold by the depletion cost per unit.

BYP 9-6 ETHICS CASE

(a) The stakeholders in this situation are:

- Dennis Harwood, president of Buster Container Company.
- Shelly McGlone, controller.
- The shareholders of Buster Container Company.
- Potential investors in Buster Container Company.

(b) The intentional misstatement of the life of an asset or the amount of the residual value is unethical for whatever the reason. There is nothing per se unethical about changing the estimate either of the life of an asset or of an asset's residual value if the change is an attempt to better match cost and revenues and is a better allocation of the asset's depreciable cost over the asset's useful life. In this case, it appears from the controller's reaction that the revisions in the life are intended only to improve earnings and, therefore, are unethical.

The fact that the competition uses a longer life on its equipment is not necessarily relevant. The competition's maintenance and repair policies and activities may be different. The competition may use its equipment fewer hours a year (e.g., one shift rather than two shifts daily) than Buster Container Company.

(c) Income before income taxes in the year of change is increased $140,000 by implementing the president's proposed changes.

	Old Estimates
Asset cost	$3,100,000
Estimated residual value	300,000
Depreciable cost	2,800,000
Depreciation per year (1/8)	$ 350,000

	Revised Estimates
Asset cost	$3,100,000
Estimated residual value	300,000
Depreciable cost	2,800,000
Depreciation taken to date ($350,000 X 2)	700,000
	2,100,000
Remaining life in years	10 years
Depreciation per year	$ 210,000

CHAPTER 10

Liabilities

ASSIGNMENT CLASSIFICATION TABLE

Study Objectives	Questions	Brief Exercises	Do It!	Exercises	A Problems	B Problems
1. Explain a current liability, and identify the major types of current liabilities.	1	1			1A	1B
2. Describe the accounting for notes payable.	2	2		1, 2	1A, 2A	1B
3. Explain the accounting for other current liabilities.	3, 4, 5	3, 4	1	3, 4, 5	1A	1B
4. Explain why bonds are issued, and identify the types of bonds.	6, 7, 8, 9, 10	5	2	6, 7		
5. Prepare the entries for the issuance of bonds and interest expense.	11, 12, 13	6, 7, 8	3	8, 9, 10, 11, 16, 17, 18, 19	3A, 4A, 6A, 7A, 8A, 9A	2B, 3B, 5B, 6B, 7B, 8B, 9B
6. Describe the entries when bonds are redeemed.	14, 15	9	4	11, 12	3A, 4A, 10A	2B, 3B, 9B
7. Describe the accounting for long-term notes payable.	16	10	5	13	5A	4B
8. Identify the methods for the presentation and analysis of non-current liabilities.	17	11		14	3A, 4A, 5A	2B, 3B, 4B
*9. Compute the market price of a bond.	20	12		15		
*10. Apply the effective-interest method of amortizing bond discount and bond premium.	18, 19	13		16, 17	6A, 7A	5B, 6B

ASSIGNMENT CLASSIFICATION TABLE (Continued)

Study Objectives	Questions	Brief Exercises	Do It!	Exercises	A Problems	B Problems
*11. Apply the straight-line method of amortizing bond discount and bond premium.	21, 22	14, 15		18, 19	8A, 9A, 10A	7B, 8B, 9B
*12. Prepare entries for payroll and payroll taxes under U.S. law	23	16, 17		20, 21		

***Note:** All **asterisked** Questions, Exercises, and Problems relate to material contained in the appendices to the chapter.

ASSIGNMENT CHARACTERISTICS TABLE

Problem Number	Description	Difficulty Level	Time Allotted (min.)
1A	Prepare current liability entries, adjusting entries, and current liabilities section.	Moderate	30–40
2A	Journalize and post note transactions and show statement of financial position presentation.	Moderate	30–40
3A	Prepare entries to record issuance of bonds, interest accrual, and bond redemption.	Moderate	20–30
4A	Prepare entries to record issuance of bonds, interest accrual, and bond redemption.	Moderate	15–20
5A	Prepare installment payments schedule and journal entries for a mortgage note payable.	Moderate	20–30
*6A	Prepare entries to record issuance of bonds, payment of interest, and amortization of bond premium using effective-interest method.	Moderate	30–40
*7A	Prepare entries to record issuance of bonds, payment of interest, and amortization of discount using effective-interest method. In addition, answer questions.	Moderate	30–40
*8A	Prepare entries to record issuance of bonds, interest accrual, and straight-line amortization for 2 years.	Simple	30–40
*9A	Prepare entries to record issuance of bonds, interest, and straight-line amortization of bond premium and discount.	Simple	30–40
*10A	Prepare entries to record interest payments, straight-line premium amortization, and redemption of bonds.	Moderate	30–40
1B	Prepare current liability entries, adjusting entries, and current liabilities section.	Moderate	30–40
2B	Prepare entries to record issuance of bonds, interest accrual, and bond redemption.	Moderate	20–30
3B	Prepare entries to record issuance of bonds, interest accrual, and bond redemption.	Moderate	15–20
4B	Prepare installment payments schedule and journal entries for a mortgage note payable.	Moderate	20–30
*5B	Prepare entries to record issuance of bonds, payment of interest, and amortization of bond discount using effective-interest method.	Moderate	30–40

ASSIGNMENT CHARACTERISTICS TABLE (Continued)

Problem Number	Description	Difficulty Level	Time Allotted (min.)
*6B	Prepare entries to record issuance of bonds, payment of interest, and amortization of premium using effective-interest method. In addition, answer questions.	Moderate	30–40
*7B	Prepare entries to record issuance of bonds, interest accrual, and straight-line amortization for two years.	Simple	30–40
*8B	Prepare entries to record issuance of bonds, interest, and straight-line amortization of bond premium and discount.	Simple	30–40
*9B	Prepare entries to record interest payments, straight-line discount amortization, and redemption of bonds.	Moderate	30–40

WEYGANDT IFRS 1E
CHAPTER 10
LIABILITIES

Number	SO	BT	Difficulty	Time (min.)
BE1	1	C	Simple	3–5
BE2	2	AP	Simple	2–4
BE3	3	AP	Simple	2–4
BE4	3	AP	Simple	2–4
BE5	4	AP	Simple	6–8
BE6	5	AP	Simple	4–6
BE7	5	AP	Simple	3–5
BE8	5	AP	Simple	4–6
BE9	6	AP	Simple	3–5
BE10	7	AP	Simple	6–8
BE11	8	AP	Simple	3–5
*BE12	9	AP	Simple	3–5
*BE13	10	AP	Simple	4–6
*BE14	11	AP	Simple	4–6
*BE15	11	AP	Simple	4–6
*BE16	12	AP	Simple	3–5
*BE17	12	AP	Simple	3–5
DI1	3	C	Simple	6–8
DI2	4	C	Simple	2–3
DI3	5	AP	Simple	4–6
DI4	6	AP	Simple	3–5
DI5	7	AP	Simple	4–6
EX1	2	AN	Moderate	8–10
EX2	2	AN	Simple	6–8
EX3	3	AP	Simple	4–6
EX4	3	AN	Simple	6–8
EX5	3	AP	Simple	6–8
EX6	4	C	Simple	4–6
EX7	4	AN	Simple	4–6
EX8	5	AP	Simple	4–6
EX9	5	AP	Simple	4–6
EX10	5	AP	Simple	6–8
EX11	5, 6	AP	Simple	6–8
EX12	6	AP	Moderate	8–10

LIABILITIES (Continued)

Number	SO	BT	Difficulty	Time (min.)
EX13	7	AP	Simple	6–8
EX14	8	AP	Simple	3–5
*EX15	9	AP	Simple	4–6
*EX16	5, 10	AP	Moderate	8–10
*EX17	5, 10	AP	Moderate	8–10
*EX18	5, 11	AP	Simple	6–8
*EX19	5, 11	AP	Simple	6–8
*EX20	12	AP	Simple	8–10
*EX21	12	AP	Simple	3–5
P1A	1–3	AN	Moderate	30–40
P2A	2	AN	Moderate	30–40
P3A	5, 6, 8	AP	Moderate	20–30
P4A	5, 6, 8	AP	Moderate	15–20
P5A	7, 8	AP	Moderate	20–30
*P6A	5, 10	AP	Moderate	30–40
*P7A	5, 10	AP	Moderate	30–40
*P8A	5, 11	AP	Simple	30–40
*P9A	5, 11	AP	Simple	30–40
*P10A	6, 11	AP	Moderate	30–40
P1B	1–3	AN	Moderate	30–40
P2B	5, 6, 8	AP	Moderate	20–30
P3B	5, 6, 8	AP	Moderate	15–20
P4B	7, 8	AP	Moderate	20–30
P5B	5, 10	AP	Moderate	30–40
*P6B	5, 10	AP	Moderate	30–40
*P7B	5, 11	AP	Simple	30–40
*P8B	5, 11	AP	Simple	30–40
*P9B	5, 6, 11	AP	Moderate	30–40
BYP1	1	AN	Simple	5–10
BYP2	3, 8	AP	Simple	10–15
BYP3	4	C	Simple	10–15
BYP4	5, 6	AN	Moderate	15–20
BYP5	4	C	Simple	10–15
BYP6	5, 6	E	Simple	10–15

BLOOM'S TAXONOMY TABLE

Correlation Chart between Bloom's Taxonomy, Study Objectives and End-of-Chapter Exercises and Problems

Study Objective	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
1. Explain a current liability, and identify the major types of current liabilities.		Q10-1 BE10-1		P10-1A P10-1B		
2. Describe the accounting for notes payable.		Q10-2	E10-1	BE10-2 P10-1A E10-2 P10-1B P10-2A		
3. Explain the accounting for other current liabilities.		Q10-3 Q10-5 Q10-4 DI10-1	BE10-4 E10-3	BE10-3 P10-1B E10-4 E10-5 P10-1A		
4. Explain why bonds are issued, and identify the types of bonds.	Q10-10	Q10-6 Q10-9 Q10-7 DI10-2 Q10-8 E10-6	BE10-5	E10-7		
5. Prepare the entries for the issuance of bonds and interest expense.		Q10-11 Q10-13	Q10-12 E10-18 P10-2B BE10-6 E10-19 P10-3B BE10-7 P10-3A P10-5B BE10-8 P10-4A P10-6B DI10-3 P10-6A P10-7B E10-11 P10-7A P10-8B E10-16 P10-8A P10-9B E10-17 P10-9A	E10-8 E10-9 E10-10		
6. Describe the entries when bonds are redeemed.		Q10-14 Q10-15	BE10-9 P10-4A P10-3B DI10-4 P10-10A P10-9B P10-3A P10-2B	E10-11 E10-12		
7. Describe the accounting for long-term notes payable.			Q10-18 DI10-5 P10-4B BE10-10 P10-5A	E10-13		
8. Identify the methods for the presentation and analysis of non-current liabilities.	Q10-17		BE10-11 P10-5A P10-4B P10-3A P10-2B P10-4A P10-3B	E10-14		
*9. Compute the market price of a bond.		Q10-20	BE10-12	E10-15		
*10. Apply the effective-interest method of amortizing bond discount and bond premium.		Q10-18 Q10-19	BE10-13 P10-5B P10-6A P10-6B P10-7A	E10-16 E10-17		
*11. Apply the straight-line method of amortizing bond discount and bond premium.		Q10-21	Q10-22 P10-8A P10-7B BE10-14 P10-9A P10-8B BE10-15 P10-10A P10-9B	E10-18 E10-19		
*12. Prepare entries for payroll and payroll taxes under U.S. law.	Q10-23		BE10-16 E10-20 BE10-17 E10-21			
Broadening Your Perspective		Financial Reporting Exploring the Web Communication		Comparative Analysis		Decision Making Across the Organization Ethics Case

ANSWERS TO QUESTIONS

1. Jill is not correct. A current liability is a debt that can reasonably be expected to be paid: (a) from existing current assets or through the creation of other current liabilities and (b) within one year or the operating cycle, whichever is longer.

2. In the statement of financial position, Notes Payable of Rs400,000 and Interest Payable of Rs9,000 (Rs400,000 X .09 X 3/12) should be reported as current liabilities. In the income statement, Interest Expense of Rs9,000 should be reported under other income and expense.

3. (a) Disagree. The company only serves as a collection agent for the taxing authority. It does not report sales taxes as an expense; it merely forwards the amount paid by the customer to the government.

   (b) The entry to record the proceeds is:

Cash	7,400	
Sales		7,000
Sales Taxes Payable		400

4. (a) The entry when the tickets are sold is:

Cash	800,000	
Unearned Football Ticket Revenue		800,000

   (b) The entry after each game is:

Unearned Football Ticket Revenue	160,000	
Football Ticket Revenue		160,000

5. Liquidity refers to the ability of a company to pay its maturing obligations and meet unexpected needs for cash. Two measures of liquidity are working capital (current assets – current liabilities) and the current ratio (current assets ÷ current liabilities).

6. (a) Non-current liabilities are obligations that are expected to be paid after one year. Examples include bonds, long-term notes, and lease obligations.

   (b) A bond is a form of an interest-bearing notes payable used by corporations, universities, and governmental agencies.

7. (a) The major advantages are:

   (1) Shareholder control is not affected—bondholders do not have voting rights, so current shareholders retain full control of the company.

   (2) Tax savings result—bond interest is deductible for tax purposes; dividends on ordinary shares are not.

   (3) Earnings per share may be higher—although bond interest expense will reduce net income, earnings per share will often be higher under bond financing because no additional shares are issued.

   (b) The major disadvantages in using bonds are that interest must be paid on a periodic basis and the principal (face value) of the bonds must be paid at maturity.

8. (a) Secured bonds have specific assets of the issuer pledged as collateral. In contrast, unsecured bonds are issued against the general credit of the borrower. These bonds are called debenture bonds.
(b) Term bonds mature at a single specified future date. In contrast, serial bonds mature in installments.
(c) Registered bonds are issued in the name of the owner. In contrast, bearer (coupon) bonds are issued to bearer and are unregistered. Holders of bearer bonds must send in coupons to receive interest payments.
(d) Convertible bonds may be converted into ordinary shares at the bondholders' option. In contrast, callable bonds are subject to call and retirement at a stated dollar amount prior to maturity at the option of the issuer.

9. (a) Face value is the amount of principal due at the maturity date. (Face value is also called par value.)
(b) The contractual interest rate is the rate used to determine the amount of cash interest the borrower pays and the investor receives. This rate is also called the stated interest rate because it is the rate stated on the bonds.
(c) A bond indenture is a legal document that sets forth the terms of the bond issue.
(d) A bond certificate is a legal document that indicates the name of the issuer, the face value of the bonds, and such other data as the contractual interest rate and maturity date of the bonds.

10. The two major obligations incurred by a company when bonds are issued are the interest payments due on a periodic basis and the principal which must be paid at maturity.

11. Less than. Investors are required to pay more than the face value; therefore, the market interest rate is less than the contractual rate.

12. R$28,000. R$800,000 X 7% X 1/2 year = R$28,000.

13. $860,000. The balance of the Bonds Payable account minus the unamortized bond discount (or plus the unamortized bond premium) equals the carrying value of the bonds.

14. Debits: Bonds Payable (for the face value) and Premium on Bonds Payable (for the unamortized balance).
Credits: Cash (for 97% of the face value) and Gain on Bond Redemption (for the difference between the cash paid and the bonds' carrying value).

15. A convertible bond permits bondholders to convert it into ordinary shares at the option of the bondholders.
(a) For bondholders, the conversion option gives an opportunity to benefit if the market price of the shares increases substantially.
(b) For the issuer, convertible bonds usually have a higher selling price and a lower rate of interest than comparable debt securities without the conversion option.

16. No, Tim is not right. Each payment by Tim consists of: (1) interest on the unpaid balance of the loan and (2) a reduction of loan principal. The interest decreases each period while the portion applied to the loan principal increases each period.

17. The nature and the amount of each non-current liability should be presented in the statement of financial position or in schedules in the accompanying notes to the statements. The notes should also indicate the interest rates, maturity dates, conversion privileges, and assets pledged as collateral.

***18.** Laura is probably indicating that since the borrower has the use of the bond proceeds over the term of the bonds, the borrowing rate in each period should be the same. The effective-interest method results in a varying amount of interest expense but a constant rate of interest on the balance outstanding. Accordingly, it results in a better matching of expenses with revenues than the straight-line method.

***19.** Decrease. Under the effective-interest method the interest charge per period is determined by multiplying the carrying value of the bonds by the effective-interest rate. When bonds are issued at a premium, the carrying value decreases over the life of the bonds. As a result, the interest expense will also decrease over the life of the bonds because it is determined by multiplying the decreasing carrying value of the bonds at the beginning of the period by the effective-interest rate.

***20.** No, Tina is not right. The market price of any bond is a function of three factors: (1) The dollar amounts to be received by the investor (interest and principal), (2) The length of time until the amounts are received (interest payment dates and maturity date), and (3) The market interest rate.

***21.** The straight-line method results in the same amortized amount being assigned to Interest Expense each interest period. This amount is determined by dividing the total bond discount or premium by the number of interest periods the bonds will be outstanding.

***22.** $28,000. Interest expense is the interest to be paid in cash less the premium amortization for the year. Cash to be paid equals 8% X $400,000 or $32,000. Total premium equals 5% of $400,000 or $20,000. Since this is to be amortized over 5 years (the life of the bonds) in equal amounts, the amortization amount is $20,000 ÷ 5 = $4,000. Thus, $32,000 – $4,000 or $28,000 equals interest expense for 2011.

***23.** Three taxes commonly withheld by employers from employees' gross pay are: (1) federal income taxes (2) state income taxes, and (3) social security (FICA) taxes.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 10-1

(a) A note payable due in two years is a non-current liability, not a current liability.

(b) $30,000 of the mortgage payable is a current maturity of long-term debt. This amount should be reported as a current liability.

(c) Interest payable is a current liability because it will be paid out of current assets in the near future.

(d) Accounts payable is a current liability because it will be paid out of current assets in the near future.

BRIEF EXERCISE 10-2

July 1	Cash	80,000	
	Notes Payable		80,000
Dec. 31	Interest Expense	4,000	
	Interest Payable (£80,000 X 10% X 1/2)		4,000

BRIEF EXERCISE 10-3

Sales tax payable

(1) Sales = $14,800 = ($15,540 ÷ 1.05)

(2) Sales taxes payable = $740 = ($14,800 X 5%)

Mar. 16	Cash	15,540	
	Sales		14,800
	Sales Taxes Payable		740

BRIEF EXERCISE 10-4

Cash	720,000	
Unearned Basketball Ticket Revenue		720,000
(To record sale of 4,000 season tickets)		
Unearned Basketball Ticket Revenue	60,000	
Basketball Ticket Revenue		60,000
(To record basketball ticket revenues earned)		

BRIEF EXERCISE 10-5

	Issue Shares	Issue Bond
Income before interest and taxes	€700,000	€700,000
Interest (€2,000,000 X 8%)	0	160,000
Income before income taxes	700,000	540,000
Income tax expense (30%)	210,000	162,000
Net income (a)	€490,000	€378,000
Outstanding shares (b)	700,000	500,000
Earnings per share (a) ÷ (b)	€ 0.70	€ 0.76

Net income is higher if shares are used. However, earnings per share is lower than earnings per share if bonds are used because of the additional shares that are outstanding.

BRIEF EXERCISE 10-6

(a)	Jan. 1	Cash	3,000,000	
		Bonds Payable (3,000 X $1,000)		3,000,000
(b)	July 1	Bond Interest Expense	120,000	
		Cash ($3,000,000 X 8% X 1/2)		120,000
(c)	Dec. 31	Bond Interest Expense	120,000	
		Bond Interest Payable ($3,000,000 X 8% X 1/2)		120,000

BRIEF EXERCISE 10-7

(a)	Jan.	1	Cash (€2,000,000 X .97)	1,940,000	
			Bonds Payable		1,940,000
(b)	Jan.	1	Cash (€2,000,000 X 1.04)	2,080,000	
			Bonds Payable		2,080,000

BRIEF EXERCISE 10-8

1.	Jan.	1	Cash (1,000 X $1,000)	1,000,000	
			Bonds Payable		1,000,000
2.	July	1	Cash ($800,000 X 1.02)	816,000	
			Bonds Payable		816,000
3.	Sept.	1	Cash ($200,000 X .98)	196,000	
			Bonds Payable		196,000

BRIEF EXERCISE 10-9

Bonds Payable	940,000	
Loss on Bond Redemption (£1,010,000 – £940,000)	70,000	
Cash (£1,000,000 X 101%)		1,010,000

BRIEF EXERCISE 10-10

Semiannual Interest Period	(A) Cash Payment	(B) Interest Expense (D) X 5%	(C) Reduction of Principal (A) – (B)	(D) Principal Balance (D) – (C)
Issue Date				$600,000
1	$48,145	$30,000	$18,145	581,855

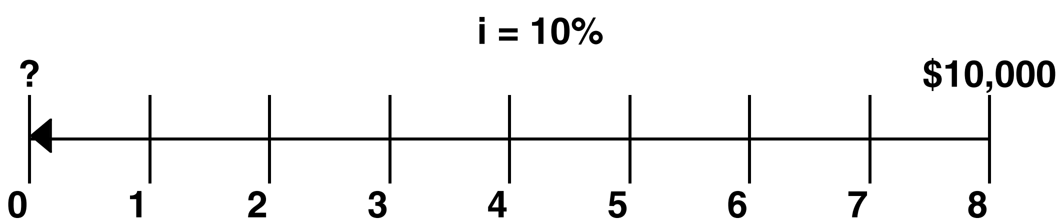
Dec. 31	Cash	600,000	
	Mortgage Notes Payable		600,000
June 30	Interest Expense	30,000	
	Mortgage Notes Payable	18,145	
	Cash		48,145

BRIEF EXERCISE 10-11

Non-current liabilities	
Bonds payable, due 2013	CHF455,000
Notes payable, due 2016	80,000
Lease liability	70,000
Total	CHF605,000

*BRIEF EXERCISE 10-12

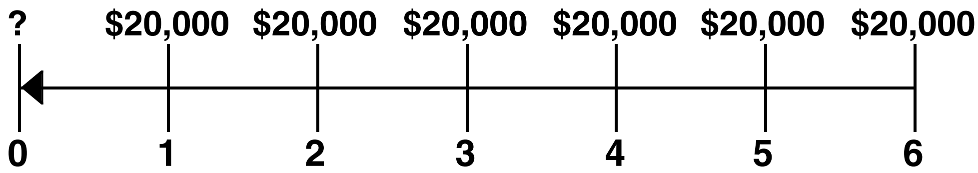
(a)



Discount rate from Table 16 A-1 is .46651 (8 periods at 10%). Present value of $10,000 to be received in 8 periods discounted at 10% is therefore $4,665.10 ($10,000 X .46651).

*BRIEF EXERCISE 10-12 (Continued)

(b) i = 8%



Discount rate from Table 11 A-2 is 4.62288 (6 periods at 8%). Present value of 6 payments of $20,000 each discounted at 8% is therefore $92,457.60 ($20,000 X 4.62288).

*BRIEF EXERCISE 10-13

(a)	Interest Expense	46,884	
	Bonds Payable		1,884
	Cash		45,000

(b) Interest expense is greater than interest paid because the bonds sold at a discount which must be amortized over the life of the bonds. The bonds sold at a discount because investors demanded a market interest rate higher than the contractual interest rate.

(c) Interest expense increases each period because the bond carrying value increases each period. As the market interest rate is applied to this bond carrying amount, interest expense will increase.

*BRIEF EXERCISE 10-14

(a)	Jan. 1	Cash (.96 X HK$5,000,000)	4,800,000	
		Bonds Payable		4,800,000
(b)	July 1	Bond Interest Expense	235,000	
		Bonds Payable (HK$200,000 ÷ 20)		10,000
		Cash (HK$5,000,000 X 9% X 1/2)		225,000

*BRIEF EXERCISE 10-15

(a)	Cash (1.02 X $3,000,000)	3,060,000	
	Bonds Payable		3,060,000
(b)	Bond Interest Expense	144,000	
	Bonds Payable ($60,000 ÷ 10)	6,000	
	Cash ($3,000,000 X 10% X 1/2)		150,000

*BRIEF EXERCISE 10-16

Gross earnings:		
Regular pay (40 X $16)	$640.00	
Overtime pay (7 X $24)	168.00	$808.00
Gross earnings		$808.00
Less: FICA taxes payable ($808 X 8%)	$ 64.64	
Federal income taxes payable	95.00	159.64
Net pay		$648.36

*BRIEF EXERCISE 10-17

Jan. 15	Wages Expense	808.00	
	FICA Taxes Payable ($808 X 8%)		64.64
	Federal Income Taxes Payable		95.00
	Wages Payable		648.36
Jan. 15	Wages Payable	648.36	
	Cash		648.36

SOLUTIONS FOR DO IT! REVIEW EXERCISES

DO IT! 10-1

1. $42,000/1.05 = $40,000; $40,000 X 5% = $2,000
2. 1,000 X $12 X 9/12 = $9,000

DO IT! 10-2

1. False. Mortgage bonds and sinking fund bonds are both examples of secured bonds.
2. False. Convertible bonds can be converted into ordinary shares at the bondholder's option; callable bonds can be retired by the issuer at a set amount prior to maturity.
3. True.
4. True.
5. True.

DO IT! 10-3

(a) Cash	312,000,000	
Bonds Payable		312,000,000
(To record sale of bonds at a premium)		

(b) Non-current liabilities		
Bonds payable		312,000,000

DO IT! 10-4

Loss on Bond Redemption	6,000	
Bonds Payable	390,000	
Cash		396,000
(To record redemption of bonds at 99)		

DO IT! 10-5

Cash	350,000	
Mortgage Notes Payable		350,000
(To record mortgage loan)		
Interest Expense	10,500*	
Mortgage Notes Payable	7,357	
Cash		17,857
(To record semiannual payment on mortgage)		

*Interest expense = R$350,000 X 6% X 6/12

SOLUTIONS TO EXERCISES

EXERCISE 10-1

July 1, 2011		
Cash	50,000	
Notes Payable		50,000
November 1, 2011		
Cash	60,000	
Notes Payable		60,000
December 31, 2011		
Interest Expense		
(€50,000 X 12% X 6/12)	3,000	
Interest Payable		3,000
Interest Expense		
(€60,000 X 10% X 2/12)	1,000	
Interest Payable		1,000
February 1, 2012		
Notes Payable	60,000	
Interest Payable	1,000	
Interest Expense (€60,000 X 10% X 1/12)	500	
Cash		61,500
April 1, 2012		
Notes Payable	50,000	
Interest Payable	3,000	
Interest Expense (€50,000 X 12% X 3/12)	1,500	
Cash		54,500

EXERCISE 10-2

(a)	June 1	Cash	90,000	
		Notes Payable		90,000
(b)	June 30	Interest Expense	900	
		Interest Payable		
		[($90,000 X 12%) X 1/12]		900
(c)	Dec. 1	Notes Payable	90,000	
		Interest Payable		
		($90,000 X 12% X 6/12)	5,400	
		Cash		95,400

(d) $5,400

EXERCISE 10-3

	KEMER COMPANY		
Apr. 10	Cash	31,500	
	Sales		30,000
	Sales Taxes Payable		1,500
	BODRUM COMPANY		
15	Cash	23,540	
	Sales (TL23,540 ÷ 1.07)		22,000
	Sales Taxes Payable		
	(TL23,540 – TL22,000)		1,540

EXERCISE 10-4

(a)	Nov. 30	Cash	240,000	
		Unearned Subscriptions (12,000 X $20)		240,000
(b)	Dec. 31	Unearned Subscriptions	20,000	
		Subscription Revenue ($240,000 X 1/12)		20,000
(c)	Mar. 31	Unearned Subscriptions	60,000	
		Subscription Revenue ($240,000 X 3/12)		60,000

EXERCISE 10-5

(a) Current ratio

2008 $9,598 ÷ $5,839 = 1.64:1
2007 $9,838 ÷ $5,362 = 1.83:1

Working capital

2008 $9,598 – $5,839 = $3,759 million
2007 $9,838 – $5,362 = $4,476 million

(b) Current ratio

$9,298 ÷ $5,539 = 1.68:1

Working capital

$9,298 – $5,539 = $3,759 million

It would make its current ratio increase slightly, but its working capital would remain the same.

EXERCISE 10-6

1. True.
2. True.
3. False. When seeking long-term financing, an advantage of issuing *bonds* over issuing *ordinary shares* is that tax savings result.
4. True.
5. False. *Unsecured* bonds are also known as debenture bonds.
6. False. Bonds that mature in installments are called *serial* bonds.
7. True.
8. True.
9. True.
10. True.

EXERCISE 10-7

	Plan One Issue Shares	Plan Two Issue Bonds
Income before interest and taxes	¥800,000	¥800,000
Interest (¥2,700,000 X 10%)	—	270,000
Income before taxes	800,000	530,000
Income tax expense (30%)	240,000	159,000
Net income	¥560,000	¥371,000
Outstanding shares	150,000	90,000
Earnings per share	¥3.73	¥4.12

EXERCISE 10-8

(a)	Jan. 1	Cash	500,000	
		Bonds Payable		500,000
(b)	July 1	Bond Interest Expense	25,000	
		Cash ($500,000 X 10% X 1/2)		25,000
(c)	Dec. 31	Bond Interest Expense	25,000	
		Bond Interest Payable		25,000

EXERCISE 10-9

(a)	Jan. 1	Cash		300,000	
			Bonds Payable		300,000
(b)	July 1	Bond Interest Expense		12,000	
			Cash (R$300,000 X 8% X 1/2)		12,000
(c)	Dec. 31	Bond Interest Expense		12,000	
			Bond Interest Payable		12,000

EXERCISE 10-10

(a)	1.	Cash		485,000	
			Bonds Payable		485,000

2.

Semiannual interest payments ($20,000* X 10)	$200,000
Plus: bond discount	15,000
Total cost of borrowing	$215,000

*($500,000 X .08 X 6/12)

OR

Principal at maturity	$500,000
Semiannual interest payments ($20,000 X 10)	200,000
Cash to be paid to bondholders	700,000
Cash received from bondholders	(485,000)
Total cost of borrowing	$215,000

EXERCISE 10-10 (Continued)

(b)	1.	Cash	525,000	
		Bonds Payable		525,000
	2.	Semiannual interest payments ($20,000 X 10)		$200,000
		Less: bond premium		25,000
		Total cost of borrowing		$175,000

OR

Principal at maturity	$500,000
Semiannual interest payments ($20,000 X 10)	200,000
Cash to be paid to bondholders	700,000
Cash received from bondholders	(525,000)
Total cost of borrowing	$175,000

EXERCISE 10-11

(a)	Jan.	1	Bond Interest Payable	72,000	
			Cash		72,000
(b)	Jan	1	Bonds Payable	600,000	
			Loss on Bond Redemption	24,000	
			Cash ($600,000 X 1.04)		624,000
(c)	July	1	Bond Interest Expense	45,000	
			Cash ($1,000,000 X 9% X 6/2)		45,000

EXERCISE 10-12

1.	June 30	Bonds Payable	117,500	
		Loss on Bond Redemption		
		(£132,600 – £117,500)	15,100	
		Cash (£130,000 X 102%)		132,600
2.	June 30	Bonds Payable	151,000	
		Gain on Bond Redemption		
		(£151,000 – £147,000)		4,000
		Cash (£150,000 X 98%)		147,000

EXERCISE 10-13

		2011		
		Issuance of Note		
Dec.	31	Cash	240,000	
		Mortgage Notes Payable		240,000
		2012		
		First Installment Payment		
June	30	Interest Expense		
		($240,000 X 10% X 6/12)	12,000	
		Mortgage Notes Payable	8,000	
		Cash		20,000
		Second Installment Payment		
Dec.	31	Interest Expense		
		[($240,000 – $8,000) X 10% X 6/12]	11,600	
		Mortgage Notes Payable	8,400	
		Cash		20,000

EXERCISE 10-14

Non-current liabilities	
Bonds payable, due 2016	HK$212,000
Lease liability	89,500
Total	HK$301,500

*EXERCISE 10-15

Present value of principal ($200,000 X .61391)	$122,782
Present value of interest ($8,000 X 7.72173)	61,774
Market price of bonds	$184,556

***EXERCISE 10-16**

(a)	Jan. 1	Cash	562,613	
		Bonds Payable		562,613
(b)	July 1	Bond Interest Expense		
		(€562,613 X 5%)	28,131	
		Bonds Payable		1,131
		Cash (€600,000 X 9% X 1/2)............		27,000
(c)	Dec. 31	Bond Interest Expense		
		[(€562,613 + €1,131) X 5%]	28,187	
		Bonds Payable		1,187
		Bond Interest Payable		27,000

(b), (c)

Semiannual Interest Periods	(A) Interest to Be Paid (4.5% X €600,000)	(B) Interest Expense to Be Recorded (5% X Preceding Bond Carrying Value) (E X .05)	(C) Discount Amortization (B) – (A)	(D) Bond Carrying Value
Issue date				562,613
1	27,000	28,131	1,131	563,744
2	27,000	28,187	1,187	564,931

***EXERCISE 10-17**

(a)	Jan. 1	Cash	318,694	
		Premium on Bonds Payable		318,694
(b)	July 1	Bond Interest Expense		
		($318,694 X 5%)	15,935	
		Bonds Payable	565	
		Cash ($300,000 X 11% X 1/2)		16,500
(c)	Dec. 31	Bond Interest Expense		
		[($318,694 – $565) X 5%]	15,906	
		Bonds Payable	594	
		Bond Interest Payable		16,500

*EXERCISE 10-17 (Continued)

(b), (c)

Semiannual Interest Periods	(A) Interest to Be Paid (5.5% X $300,000)	(B) Interest Expense to Be Recorded (5.0% X Preceding Bond Carrying Value) (E X .05)	(C) Premium Amortization (A) – (B)	(D) Bond Carrying Value
Issue date				318,694
1	16,500	15,935	565	318,129
2	16,500	15,906	594	317,535

*EXERCISE 10-18

(a)	Jan. 1	Cash (€400,000 X 103%)	412,000	
		Bonds Payable		412,000
(b)	July 1	Bond Interest Expense	17,700	
		Bonds Payable (€12,000 X 1/40)	300	
		Cash (€400,000 X 9% X 1/2)		18,000
(c)	Dec. 31	Bond Interest Expense	17,700	
		Bonds Payable	300	
		Bond Interest Payable		18,000
		2031		
(d)	Jan. 1	Bonds Payable	400,000	
		Cash		400,000

*EXERCISE 10-19

(a)		2010		
	Dec. 31	Cash	730,000	
		Bonds Payable		730,000
(b)		2011		
	June 30	Bond Interest Expense	47,500	
		Bonds Payable ($70,000 ÷ 20)		3,500
		Cash ($800,000 X 11% X 1/2)		44,000
(c)		2011		
	Dec. 31	Bond Interest Expense	47,500	
		Bonds Payable		3,500
		Cash ($800,000 X 11% X 1/2)		44,000
(d)		2020		
	Dec. 31	Bonds Payable	800,000	
		Cash		800,000

***EXERCISE 10-20**

(a) Net pay = Gross pay – FICA taxes – Federal income tax
Net pay = $1,780 – $135.73 – $301.63
Net pay = $1,342.64

(b)	Salaries Expense	1,780.00	
	FICA Taxes Payable		135.73
	Federal Income Taxes Payable		301.63
	Salaries Payable		1,342.64
(c)	Salaries Payable	1,342.64	
	Cash		1,342.64

***EXERCISE 10-21**

Payroll Tax Expense	352.16	
FICA Taxes Payable		198.40
Federal Unemployment Taxes Payable		19.84
State Unemployment Taxes Payable		133.92

SOLUTIONS TO PROBLEMS

PROBLEM 10-1A

(a)	Jan. 5	Cash	22,680	
		Sales (£22,680 ÷ 108%)		21,000
		Sales Taxes Payable (£22,680 – £21,000)		1,680
	12	Unearned Service Revenue	10,000	
		Service Revenue		10,000
	14	Sales Taxes Payable	7,700	
		Cash		7,700
	20	Accounts Receivable	43,200	
		Sales		40,000
		Sales Taxes Payable (800 X £50 X 8%)		3,200
	21	Cash	18,000	
		Notes Payable		18,000
	25	Cash	12,420	
		Sales (£12,420 ÷ 108%)		11,500
		Sales Taxes Payable (£12,420 – £11,500)		920
(b)	Jan. 31	Interest Expense	40	
		Interest Payable (£18,000 X 8% X 1/12 = £120; £120 X 1/3)		40

PROBLEM 10-1A (Continued)

(c) Current liabilities

Notes payable	£18,000
Accounts payable	52,000
Unearned service revenue (£16,000 – £10,000)	6,000
Sales taxes payable (£1,680 + £3,200 + £920)	5,800
Interest payable	40
Total current liabilities	£81,840

PROBLEM 10-2A

(a)	Jan. 2	Merchandise Inventory or			
		Purchases		30,000	
		Accounts Payable			30,000
	Feb. 1	Accounts Payable		30,000	
		Notes Payable			30,000
	Mar. 31	Interest Expense			
		($30,000 X 9% X 2/12)		450	
		Interest Payable			450
	Apr. 1	Notes Payable		30,000	
		Interest Payable		450	
		Cash			30,450
	July 1	Equipment		51,000	
		Cash			11,000
		Notes Payable			40,000
	Sept. 30	Interest Expense			
		($40,000 X 10% X 3/12)		1,000	
		Interest Payable			1,000
	Oct. 1	Notes Payable		40,000	
		Interest Payable		1,000	
		Cash			41,000
	Dec. 1	Cash		15,000	
		Notes Payable			15,000
	Dec. 31	Interest Expense			
		($15,000 X 8% X 1/12)		100	
		Interest Payable			100

PROBLEM 10-2A (Continued)

(b)

Notes Payable

4/1	30,000	2/1	30,000
10/1	40,000	7/1	40,000
		12/1	15,000
		12/31 Bal.	15,000

Interest Payable

4/1	450	3/31	450
10/1	1,000	9/30	1,000
		12/31	100
		12/31 Bal.	100

Interest Expense

3/31	450		
9/30	1,000		
12/31	100		
12/31 Bal.	1,550		

(c) Current liabilities

Notes payable	$15,000	
Interest payable	100	$15,100

(d) Total interest is $1,550.

PROBLEM 10-3A

(a)		**2011**		
	May 1	Cash	600,000	
		Bonds Payable		600,000
(b)	Dec. 31	Bond Interest Expense	9,000	
		Bond Interest Payable (CHF600,000 X 9% X 2/12)		9,000
(c)	Non-current Liabilities			
	Bonds Payable, due 2016			$600,000
	Current Liabilities			
	Bond Interest Payable			$ 9,000
(d)		**2012**		
	May 1	Bond Interest Payable	9,000	
		Bond Interest Expense (CHF600,000 X 9% X 4/12)	18,000	
		Cash		27,000
(e)	Nov. 1	Bond Interest Expense	27,000	
		Cash (CHF600,000 X 9% X 1/2)		27,000
(f)	Nov. 1	Bonds Payable	600,000	
		Loss on Bond Redemption	12,000	
		Cash (CHF600,000 X 1.02)		612,000

PROBLEM 10-4A

(a)		**2011**		
	Jan. 1	Cash ($500,000 X 1.04)	520,000	
		Bonds Payable		520,000

(b) **Non-current Liabilities**

Bonds payable, due 2021	$518,000*

Current Liabilities

Bond interest payable ($500,000 X 10% X 1/2)	$ 25,000

*$500,000 + [$20,000 – ($20,000 X 1/10)]

(c)		**2013**		
	Jan. 1	Bonds Payable	516,000	
		Loss on Bond Redemption	9,000*	
		Cash ($500,000 X 1.05)		525,000

*($525,000 – $516,000)

PROBLEM 10-5A

(a)

Semiannual Interest Period	Cash Payment	Interest Expense	Reduction of Principal	Principal Balance
Issue Date				R$400,000
1	R$29,433	R$16,000	R$13,433	386,567
2	29,433	15,463	13,970	372,597
3	29,433	14,904	14,529	358,068
4	29,433	14,323	15,110	342,958
			R$57,042	

(b)

	2010		
Dec. 31	Cash	400,000	
	Mortgage Notes Payable		400,000
	2011		
June 30	Interest Expense	16,000	
	Mortgage Notes Payable	13,433	
	Cash		29,433
Dec. 31	Interest Expense	15,463	
	Mortgage Notes Payable	13,970	
	Cash		29,433

(c)

	12/31/11
Non-current Liabilities	
Mortgage notes payable, due 2020	R$342,958*
Current Liabilities	
Current portion of mortgage notes payable	R$ 29,639**

*(R$372,597 – R$14,529 – R$15,110)
**(R$14,529 + R$15,110)

*PROBLEM 10-6A

(a)

		2011		
July	1	Cash	2,271,813	
		Bonds Payable		2,271,813

(b)

ATWATER CORPORATION
Bond Premium Amortization
Effective-Interest Method—Semiannual Interest Payments
10% Bonds Issued at 8%

Semi-annual Interest Periods	(A) Interest to Be Paid	(B) Interest Expense	(C) Premium Amor-tization (A) – (B)	(D) Bond Carrying Value
Issue date				$2,271,813
1	$100,000	$90,873	$9,127	2,262,686
2	100,000	90,507	9,493	2,253,193
3	100,000	90,128	9,872	2,243,321

(c)

Dec. 31	Bond Interest Expense ($2,271,813 X 4%)	90,873	
	Bonds Payable	9,127	
	Bond Interest Payable ($2,000,000 X 5%)		100,000

(d)

		2012		
July	1	Bond Interest Expense [($2,271,813 – $9,127) X 4%]	90,507	
		Bonds Payable	9,493	
		Cash		100,000

(e)

Dec. 31	Bond Interest Expense [($2,262,686 – $9,493) X 4%]	90,128	
	Bonds Payable	9,872	
	Bond Interest Payable		100,000

*PROBLEM 10-7A

(a)

1.		2011		
	July 1	Cash	3,501,514	
		Bonds Payable		3,501,514
2.	Dec. 31	Bond Interest Expense		
		(€3,501,514 X 5%)	175,076	
		Bonds Payable		15,076
		Bond Interest Payable		
		(€4,000,000 X 4%)		160,000
3.		2012		
	July 1	Bond Interest Expense		
		[(€3,501,514 + €15,076) X 5%]	175,830	
		Bonds Payable		15,830
		Cash		160,000
4.	Dec. 31	Bond Interest Expense		
		[(€3,516,590 + €15,830) X 5%]	176,621	
		Bonds Payable		16,621
		Bond Interest Payable		160,000

(b) Bonds payable €3,549,041*

*(€3,501,514 + €15,076 + €15,830 + €16,621)

***PROBLEM 10-7A (Continued)**

(c) Dear _________:

Thank you for asking me to clarify some points about the bonds issued by Rossillon Company.

1. **The amount of interest expense reported for 2012 related to these bonds is €352,451 (€175,830 + €176,621).**

2. **When the bonds are sold at a discount, the effective-interest method will result in less interest expense reported than the straight-line method in 2012. Straight-line interest expense for 2012 is €369,848 [€160,000 + €160,000 + (€24,924 + €24,924)].**

3. **The total cost of borrowing is €3,698,486 as shown below:**

Semiannual interest payments	
(€4,000,000 X 4%) = €160,000; €160,000 X 20	**€3,200,000**
Add: bond discount (€4,000,000 – €3,501,514)............	**498,486**
Total cost of borrowing	**€3,698,486**

4. **The total bond interest expense over the life of the bonds is the same under either method of amortization.**

If you have other questions, please contact me.

Sincerely,

*PROBLEM 10-8A

(a)

		2011		
Jan.	1	Cash ($3,000,000 X 1.04)	3,120,000	
		Bonds Payable		3,120,000

(b) See page 10-45.

(c)

		2011		
July	1	Bond Interest Expense	144,000	
		Bonds Payable ($120,000 ÷ 20)	6,000	
		Cash		150,000
Dec.	31	Bond Interest Expense	144,000	
		Bonds Payable	6,000	
		Bond Interest Payable		150,000
		2012		
Jan.	1	Bond Interest Payable	150,000	
		Cash		150,000
July	1	Bond Interest Expense	144,000	
		Bonds Payable	6,000	
		Cash		150,000
Dec.	31	Bond Interest Expense	144,000	
		Bonds Payable	6,000	
		Bond Interest Payable		150,000

***PROBLEM 10-8A (Continued)**

(d) Non-current Liabilities

Bonds payable, due 2021	**$3,096,000**

Current Liabilities

Bond interest payable	**$ 150,000**

*PROBLEM 10-8A (Continued)

(b)

Semiannual Interest Periods	(A) Interest to Be Paid (5% X $3,000,000)	(B) Interest Expense to Be Recorded (A) – (C)	(C) Premium Amortization ($120,000 ÷ 20)	(D) Bond Carrying Value [$3,000,000 – (C)]
Issue date				$3,120,000
1	$150,000	$144,000	$6,000	3,114,000
2	150,000	144,000	6,000	3,108,000
3	150,000	144,000	6,000	3,102,000
4	150,000	144,000	6,000	3,096,000

*PROBLEM 10-9A

(a)

	2011		
July 1	Cash (Rs2,500,000 X 104%)...............	2,500,000	
	Bonds Payable		2,500,000
Dec. 31	Bond Interest Expense	95,000	
	Bonds Payable (Rs100,000 ÷ 20).....	5,000	
	Bond Interest Payable		
	(Rs2,500,000 X 8% X 1/2)		100,000

(b)

	2011		
July 1	Cash (Rs2,500,000 X 98%).................	2,450,000	
	Bonds Payable		2,450,000
Dec. 31	Bond Interest Expense	102,500	
	Bonds Payable		
	(Rs50,000 ÷ 20)		2,500
	Bond Interest Payable		
	(Rs2,500,000 X 8% X 1/2)		100,000

(c) <u>Premium</u>

Non-current Liabilities
Bonds payable, due 2021 .... Rs2,595,000

<u>Discount</u>

Non-current Liabilities
Bonds payable, due 2021 .... Rs2,452,500

*PROBLEM 10-10A

(a)		2012		
	Jan. 1	Bond Interest Payable	105,000	
		Cash		105,000
(b)	July 1	Bond Interest Expense	95,000	
		Bonds Payable		
		($200,000 ÷ 20)	10,000	
		Cash		105,000
(c)	July 1	Bonds Payable	1,276,000*	
		Gain on Bond Redemption		64,000
		($1,276,000 – $1,212,000)		
		Cash ($1,200,000 X 101%)		1,212,000
		*($200,000 – $10,000) X .40 = $76,000		
(d)	Dec. 31	Bond Interest Expense	57,000	
		Bonds Payable	6,000**	
		Bond Interest Payable		
		($1,800,000 X 7% X 1/2)		63,000

**$200,000 – $10,000 – $76,000 = $114,000; $\frac{\$114,000}{19}$ = $6,000 or $10,000 X .60.

PROBLEM 10-1B

(a)	Jan. 1	Cash	30,000	
		Notes Payable		30,000
	5	Cash	10,400	
		Sales (¥10,400 ÷ 104%)		10,000
		Sales Taxes Payable (¥10,400 – ¥10,000)		400
	12	Unearned Service Revenue	9,000	
		Service Revenue		9,000
	14	Sales Taxes Payable	5,800	
		Cash		5,800
	20	Accounts Receivable	48,672	
		Sales		46,800
		Sales Taxes Payable (900 X ¥52 X 4%)		1,872
	25	Cash	18,720	
		Sales (¥18,720 ÷ 104%)		18,000
		Sales Taxes Payable (¥18,720 – ¥18,000)		720
(b)	Jan. 31	Interest Expense	200	
		Interest Payable (¥30,000 X 8% X 1/12)		200

PROBLEM 10-1B (Continued)

(c) Current liabilities

Notes payable	¥30,000
Accounts payable	42,500
Unearned service revenue (¥15,000 – ¥9,000)	6,000
Sales taxes payable (¥400 + ¥1,872 + ¥720)	2,992
Interest payable	200
Total current liabilities	¥81,692

PROBLEM 10-2B

(a)		2011		
	June 1	Cash	1,500,000	
		Bonds Payable		1,500,000
(b)	Dec. 31	Bond Interest Expense	10,000	
		Bond Interest Payable ($1,500,000 X 8% X 1/12)		10,000
(c)	Non-current Liabilities			
	Bonds Payable			$1,500,000
	Current Liabilities			
	Bond Interest Payable			$ 10,000
(d)		2012		
	June 1	Bond Interest Payable	10,000	
		Bond Interest Expense ($1,500,000 X 8% X 5/12)	50,000	
		Cash		60,000
(e)	Dec. 1	Bond Interest Expense	60,000	
		Cash ($1,500,000 X 8% X 1/2)		60,000
(f)	Dec. 1	Bonds Payable	1,500,000	
		Loss on Bond Redemption	30,000	
		Cash ($1,500,000 X 1.02)		1,530,000

PROBLEM 10-3B

(a)

		2011		
Jan.	1	Cash (R$600,000 X 1.05)	630,000	
		Bonds Payable		630,000

(b)

Non-current Liabilities	
Bond Payable, due 2021	R$627,000*
Current Liabilities	
Bond Interest Payable (R$600,000 X 9% X 1/2)	R$27,000

*R$600,000 + R$30,000 – (R$30,000 ÷ 10)

(c)

		2013		
Jan.	1	Bonds Payable	624,000	
		Loss on Bond Redemption	6,000*	
		Cash (R$600,000 X 1.05)		630,000

*(R$630,000 – R$624,000)

PROBLEM 10-4B

(a)

Semiannual Interest Period	Cash Payment	Interest Expense	Reduction of Principal	Principal Balance
Issue Date				$500,000
1	$36,791	$20,000	$16,791	483,209
2	36,791	19,328	17,463	465,746
3	36,791	18,630	18,161	447,585
4	36,791	17,903	18,888	428,697
			$71,303	

(b)

Date	Account	Debit	Credit
	2011		
Dec. 31	Cash	500,000	
	Mortgage Notes Payable		500,000
	2012		
June 30	Interest Expense	20,000	
	Mortgage Notes Payable	16,791	
	Cash		36,791
Dec. 31	Interest Expense	19,328	
	Mortgage Notes Payable	17,463	
	Cash		36,791

(c)

	12/31/12
Non-current Liabilities	
Mortgage notes payable	$428,697*
Current Liabilities	
Current portion of mortgage notes payable	$ 37,049**

*($465,746 – $37,049)
**($18,161 + $18,888)

*PROBLEM 10-5B

(a)

		2011		
July	1	Cash	2,531,760	
		Bonds Payable		2,531,760

(b)

MATLOCK SATELLITES
Bond Discount Amortization
Effective-Interest Method—Semiannual Interest Payments
9% Bonds Issued at 10%

Semi-annual Interest Periods	(A) Interest to Be Paid	(B) Interest Expense to Be Recorded	(C) Discount Amortization (B) – (A)	(D) Bond Carrying Value
Issue date				£2,531,760
1	£121,500	£126,588	£5,088	2,536,848
2	121,500	126,842	5,342	2,542,190
3	121,500	127,110	5,610	2,547,800

(c)

Dec. 31	Bond Interest Expense (£2,531,760 X 5%)	126,588	
	Bonds Payable		5,088
	Bond Interest Payable (£2,700,000 X 9% X 1/2)		121,500

(d)

		2012		
July	1	Bond Interest Expense [(£2,531,760 + £5,088) X 5%]	126,842	
		Bonds Payable		5,342
		Cash		121,500

(e)

Dec. 31	Bond Interest Expense [(£2,536,848 + £5,342) X 5%]	127,110	
	Bonds Payable		5,610
	Bond Interest Payable		121,500

*PROBLEM 10-6B

				Debit	Credit
(a)	1.		2011		
		July 1	Cash	3,407,720	
			Bonds Payable		3,407,720
	2.	Dec. 31	Bond Interest Expense		
			($3,407,720 X 4%)	136,309	
			Bonds Payable	13,691	
			Bond Interest Payable		
			($3,000,000 X 5%)		150,000
	3.		2012		
		July 1	Bond Interest Expense		
			[($3,407,720 – $13,691) X 4%]	135,761	
			Bonds Payable	14,239	
			Cash		150,000
	4.	Dec. 31	Bond Interest Expense		
			[($3,394,029 – $14,239) X 4%]	135,192	
			Bonds Payable	14,808	
			Bond Interest Payable		150,000

(b) Bonds payable $3,364,982*

*($3,407,720 – $13,691 – $14,239 – $14,808)

***PROBLEM 10-6B (Continued)**

(c) Dear _________:

Thank you for asking me to clarify some points about the bonds issued by Posadas Chemical Company.

1. **The amount of interest expense reported for 2012 related to these bonds is $270,953 ($135,761 + $135,192).**

2. **When the bonds are sold at a premium, the effective-interest method will result in more interest expense reported than the straight-line method in 2012. Straight-line interest expense for 2012 is $259,228 [$150,000 + $150,000 – ($20,386 + $20,386)].**

3. **The total cost of borrowing is as shown below:**

Semiannual interest payments	
($3,000,000 X 10% X 1/2) = $150,000 X 20	**$3,000,000**
Less: bond premium ($3,407,720 – $3,000,000)	**407,720**
Total cost of borrowing	**$2,592,280**

4. **The total bond interest expense over the life of the bonds is the same under either method of amortization.**

If you have other questions, please contact me.

Sincerely,

*PROBLEM 10-7B

(a)

		2011		
Jan.	1	Cash (¥4,000,000 X 96%)	3,840,000	
		Bonds Payable		3,840,000

(b) See page 10-58.

(c)

		2011		
July	1	Bond Interest Expense	184,000	
		Bonds Payable (¥160,000 ÷ 40)		4,000
		Cash (¥4,000,000 X 9% X 1/2)		180,000
Dec.	31	Bond Interest Expense	184,000	
		Bonds Payable		4,000
		Bond Interest Payable		180,000
		2012		
Jan.	1	Bond Interest Payable	180,000	
		Cash		180,000
July	1	Bond Interest Expense	184,000	
		Bonds Payable		4,000
		Cash (¥4,000,000 X 9% X 1/2)		180,000
Dec.	31	Bond Interest Expense	184,000	
		Bonds Payable		4,000
		Bond Interest Payable		180,000

***PROBLEM 10-7B (Continued)**

(d) Non-current Liabilities

Bonds payable	**¥3,856,000**

Current Liabilities

Bond interest payable...................................	**¥ 180,000**

*PROBLEM 10-7B (Continued)

(b)

Semiannual Interest Periods	(A) Interest to Be Paid (4.5% X R4,000,000)	(B) Interest Expense to Be Recorded (A) + (C)	(C) Discount Amortization (R160,000 ÷ 40)	(D) Bond Carrying Value
Issue date				R3,840,000
1	R180,000	R184,000	R4,000	3,844,000
2	180,000	184,000	4,000	3,848,000
3	180,000	184,000	4,000	3,852,000
4	180,000	184,000	4,000	3,856,000

*PROBLEM 10-8B

(a)	Jan. 1	Cash ($5,000,000 X 103%)	5,150,000	
		Bonds Payable		5,150,000
	July 1	Bond Interest Expense	192,500	
		Bonds Payable ($150,000 ÷ 20)	7,500	
		Cash ($5,000,000 X 8% X 1/2)		200,000
	Dec. 31	Bond Interest Expense	192,500	
		Bonds Payable	7,500	
		Bond Interest Payable		200,000
(b)	Jan. 1	Cash ($5,000,000 X 96%)	4,800,000	
		Bonds Payable	200,000	
		Bonds Payable		5,000,000
	July 1	Bond Interest Expense	210,000	
		Bonds Payable ($200,000 ÷ 20)		10,000
		Cash		200,000
	Dec. 31	Bond Interest Expense	210,000	
		Bonds Payable		10,000
		Bond Interest Payable		200,000

*PROBLEM 10-8B (Continued)

(c) <u>Premium</u>

Non-current Liabilities	
Bonds payable, due 2021	$5,135,000
Current Liabilities	
Bond interest payable	$ 200,000

<u>Discount</u>

Non-current Liabilities	
Bonds payable, due 2021	$4,820,000
Current Liabilities	
Bond interest payable	$ 200,000

*PROBLEM 10-9B

(a)	Jan. 1	Bond Interest Payable	84,000	
		Cash		84,000
(b)	July 1	Bond Interest Expense	88,500	
		Bonds Payable (€90,000 ÷ 20)		4,500
		Cash (€2,400,000 X 7% X 1/2)		84,000
(c)	July 1	Bonds Payable	771,500*	
		Loss on Bond Redemption	36,500	
		Cash (€800,000 X 101%)		808,000

*€800,000 – [(€90,000 – €4,500) X 1/3] = €771,500

(d)	Dec. 31	Bond Interest Expense	59,000	
		Bonds Payable		3,000*
		Bond Interest Payable		56,000**

*(€90,000 – €4,500) X 2/3 = €57,000;
€57,000 ÷ 19 = €3,000 or
€4,500 X 2/3 = €3,000

**(€2,400,000 – €800,000 = €1,600,000;
€1,600,000 X 7% X 1/2 = €56,000)

COMPREHENSIVE PROBLEM SOLUTION 10–1

			Debit	Credit
(a)	1.	Bond Interest Payable	3,000	
		Cash		3,000
	2.	Merchandise Inventory	241,100	
		Accounts Payable		241,100
	3.	Cash	477,000	
		Sales		450,000
		Sales Taxes Payable		27,000
		Cost of Goods Sold	250,000	
		Merchandise Inventory		250,000
	4.	Account Payable	230,000	
		Cash		230,000
	5.	Bond Interest Expense	3,000	
		Cash		3,000
	6.	Insurance Expense	5,600	
		Prepaid Insurance		5,600
	7.	Prepaid Insurance	10,200	
		Cash		10,200
	8.	Sales Taxes Payable	17,000	
		Cash		17,000
	9.	Other Operating Expenses	91,000	
		Cash		91,000
	10.	Bond Interest Expense	3,000	
		Cash		3,000
		Bonds Payable	50,000	
		Cash		48,000
		Gain on Bond Redemption		2,000

11.	Cash ($90,000 X 104%)	93,600	
	Bonds Payable		93,600

Adjusting Entries

12.	Insurance Expense ($10,200 X 5/12)	4,250	
	Prepaid Insurance		4,250
13.	Depreciation Expense ($38,000 – $3,000) ÷ 5	7,000	
	Accumulated Depreciation		7,000
14.	Income Tax Expense	26,445	
	Income Tax Payable		26,445

(b)

ABER CORPORATION
Trial Balance
12/31/2011

Account	Debit	Credit
Cash	$195,900	
Merchandise Inventory	16,850	
Prepaid Insurance	5,950	
Equipment	38,000	
Accumulated Depreciation		$ 7,000
Accounts Payable		24,850
Sales Tax Payable		10,000
Income Tax Payable		26,445
Bonds Payable		93,600
Share Capital—Ordinary		20,000
Retained Earnings		13,100
Sales		450,000
Cost of Goods Sold	250,000	
Depreciation Expense	7,000	
Insurance Expense	9,850	
Other Operating Expenses	91,000	
Bond Interest Expense	6,000	
Gain on Bond Redemption		2,000
Income Tax Expense	26,445	
	$646,995	$646,995

COMPREHENSIVE PROBLEM SOLUTION (Continued)

(a) and (b) Optional T accounts

Cash

	Debit		Credit
Bal.	30,500		3,000
	477,000		230,000
	93,600		3,000
			10,200
			17,000
			91,000
			3,000
			48,000
Bal.	195,900		

Merchandise Inventory

	Debit		Credit
Bal.	25,750		250,000
	241,100		
Bal.	16,850		

Prepaid Insurance

	Debit		Credit
Bal.	5,600		5,600
	10,200		4,250
Bal.	5,950		

Equipment

	Debit		Credit
Bal.	38,000		

Accumulated Depreciation

	Debit		Credit
			7,000

Accounts Payable

	Debit		Credit
	230,000	Bal.	13,750
			241,100
		Bal.	24,850

Bond Interest Payble

	Debit		Credit
	3,000	Bal.	3,000
		Bal.	0

Sales Tax Payable

	Debit		Credit
	17,000		27,000
		Bal.	10,000

Income Tax Payable

	Debit		Credit
			26,445

Bonds Payable

	Debit		Credit
	50,000	Bal.	50,000
			93,600
		Bal.	93,600

Share Capital—Ordinary

	Debit		Credit
		Bal.	20,000

Retained Earnings

	Debit		Credit
		Bal.	13,100

Sales

	Debit		Credit
			450,000

(a) and (b) (Continued)

Cost of Goods Sold

Debit	Credit
250,000	

Bond Interest Expense

	Debit	Credit
	3,000	
	3,000	
Bal.	6,000	

Depreciation Expense

Debit	Credit
7,000	

Income Tax Expense

Debit	Credit
26,445	

Insurance Expense

	Debit	Credit
	5,600	
	4,250	
Bal.	9,850	

Gain on Bond Redemption

Debit	Credit
	2,000

Other Operating Expenses

Debit	Credit
91,000	

(c)

ABER CORPORATION
Income Statement
For the Year Ending 12/31/11

Sales		$450,000
Cost of goods sold		250,000
Gross profit		200,000
Operating expenses		
Insurance expense	$9,850	
Depreciation expense	7,000	
Other operating expenses	91,000	
Total operating expenses		107,850
Income from operations		92,150
Other income and expense		
Gain on bond redemption		2,000
Bond interest expense		6,000
Income before taxes		88,150
Income tax expense		26,445
Net income		$ 61,705

ABER CORPORATION
Retained Earnings Statement
For the Year Ending 12/31/11

Retained earnings, 1/1/11	$13,100
Add: Net income	61,705
	74,805
Less: Dividends	–
Retained earnings, 12/31/11	$74,805

ABER CORPORATION
Statement of Financial Position
12/31/2011

Property, Plant, and Equipment		
Equipment	$ 38,000	
Accumulated depreciation	7,000	$ 31,000
Current Assets		
Prepaid insurance	5,950	
Merchandise inventory	16,850	
Cash	195,900	218,700
Total assets		$249,700
Equity		
Share capital—ordinary	$20,000	
Retained earnings	74,805	94,805
Non-current liabilities		
Bonds payable		93,600
Current Liabilities		
Accounts payable	24,850	
Income taxes payable	26,445	
Sales tax payable	10,000	61,295
Total equity and liabilities		$249,700

COMPREHENSIVE PROBLEM SOLUTION 10–2

(a)

	Paris Company	Troyer Company
Plant and Equipment	CHF 255,300	CHF257,300
Accumulated Depreciation (2.)	(188,375)	(189,850)
Merchandise Inventory	517,000	520,200
Accounts Receivable (1.)	309,700	312,500
Allowance for Doubtful Accounts	(13,600)	(20,000)
Cash	17,200	48,400
Total Assets	CHF897,225	CHF928,550
Equity	CHF379,025*	CHF412,050**
Non-current Liabilities	78,000	84,000
Current Liabilities (3.)	440,200	432,500
Total Equity and Liabilities	CHF897,225	CHF928,550

*CHF454,750 – CHF75,725 (CHF188,375 – CHF112,650) change in accumulated depreciation.

**CHF432,050 – CHF20,000 allowance for doubtful accounts.

(b) Based on a review of the companies and revision of financial statements for purposes of comparability, it can be seen that Troyer Company is in a better financial position. However, this claim to the better position is a tenuous one. The amounts within each category in the statement of financial position of each company are quite similar.

In terms of short-term liquidity, Troyer Company is in a little stronger financial position. Total current assets for Paris Company are CHF830,300 versus CHF861,100 for Troyer. Comparing these to the current liabilities, Troyer has a current ratio of 1.99 (CHF861,100 ÷ CHF432,500) versus 1.89 (CHF830,300 ÷ CHF440,200) for Paris.

BYP 10-1 FINANCIAL REPORTING PROBLEM

(a) **Total current liabilities at December 31, 2008, £3,388 million. Cadbury's total current liabilities decreased by £1,226 (£3,388 – £4,614) million over the prior year.**

(b) **The components of current liabilities for December 31, 2008 are:**

Short-term borrowings and overdrafts	**£1,189,000,000**
Trade and other payables	**£1,551,000,000**
Tax payable	**£ 328,000,000**

(c) **At December 31, 2008, Cadbury's non-current debt was £1,876 million. There was a £657 million decrease (£1,876 – £2,533) in non-current debt during the year. The statement of financial position indicates that non-current debt consists of borrowings (£1,194).**

BYP 10-2 COMPARATIVE ANALYSIS PROBLEM

(a) Cadbury's largest current liability was "trade and other payables" at £1,551 million. Its total current liabilities were £3,388 million. Nestlé's largest current liability was "financial liabilities" at CHF15,383 million. Its total current liabilities were CHF33,223 million.

(b)

(in millions)	Cadbury	Nestlé
(1) Working capital	£2,635 – £3,388 = (£753)	CHF33,048 – CHF33,223 = (CHF175)
(1) Current ratio	$\frac{£2,635}{£3,388}$ = .78:1	$\frac{\text{CHF33,048}}{\text{CHF33,223}}$ = .99:1

(c) Based on this information, it appears that both companies are illiquid. Additional analysis should be done to assess the reason for the negative working capital and low current ratio.

(d)

	Cadbury	Nestlé
1. Debt to total assets	$\frac{£5,361}{£8,895}$ = 60.3%	$\frac{\text{CHF51,299}}{\text{CHF106,215}}$ = 48.3%
2. Times interest earned	$\frac{£366 + £30 + £50}{£50}$ = 8.92 times	$\frac{\text{CHF19,051 + CHF3,787 + CHF1,247}}{\text{CHF1,247}}$ = 19.3 times

(e) The higher the percentage of debt to total assets, the greater the risk that a company may be unable to meet its maturing obligations. Cadbury's 2008 debt to total assets ratio was 25% higher than Nestlé's. The times interest earned ratio provides an indication of a company's ability to meet interest payments. Both times interest earned ratios are excellent and, therefore, both companies will have no difficulty meeting these interest payments.

BYP 10-3 EXPLORING THE WEB

(a) **In 1909, Moody's introduced the first bond ratings as part of Moody's Analyses of Railroad Investments.**

(b) **Moody's tracks more than $35 trillion worth of debt securities.**

(c) **The ultimate value of a rating agency's contribution to that market efficiency depends on its ability to provide ratings that are clear, credible, accurate risk opinions based on a fundamental understanding of credit risk. To provide a reliable frame of reference for investment decisions, the agency's ratings should offer broad coverage and also be based on a globally consistent rating process, supported by rating committees with a multi-national perspective.**

BYP 10-4 DECISION MAKING ACROSS THE ORGANIZATION

*(a)

Face value of bonds		$6,000,000
Proceeds from sale of bonds ($6,000,000 X .96)		5,760,000
Discount on bonds payable		$ 240,000

Bond discount amortization per year:
$240,000 ÷ 5 = $48,000

Face value of bonds		$6,000,000
Amount of original discount	$240,000	
Less: Amortization through January 1, 2011 (2-year)	96,000	144,000
Carrying value of bonds, January 1, 2011		$5,856,000

(b)

1. Bonds Payable	5,856,000	
Gain on Bond Redemption		856,000*
Cash		5,000,000
(To record redemption of 8% bonds)		

*$5,856,000 – $5,000,000

2. Cash	5,000,000	
Bonds Payable		5,000,000
(To record sale of 10-year, 11% bonds at par)		

BYP 10-4 (Continued)

(c) Dear President Bailey:

The early redemption of the 8%, 5-year bonds results in recognizing a gain of $856,000 that increases current year net income by the after-tax effect of the gain. The amount of the liabilities on the statement of financial position will be lowered by the issuance of the new bonds and retirement of the 5-year bonds.

1. The cash flow of the company as it relates to bonds payable will be adversely affected as follows:

Annual interest payments on the new issue ($5,000,000 X .11)	**$550,000**
Annual interest payments on the 5-year bonds ($6,000,000 X .08)	**(480,000)**
Additional cash outflows per year	**$ 70,000**

2. The amount of interest expense shown on the income statement will be higher as a result of the decision to issue new bonds:

Annual interest expense on new bonds		**$550,000**
Annual interest expense on 8% bonds:		
Interest payment	**$480,000**	
Discount amortization	**48,000**	**(528,000)**
Additional interest expense per year		**$ 22,000**

These comparisons hold for only the 3-year remaining life of the 8%, 5-year bonds. The company must acknowledge either redemption of the 8% bonds at maturity, January 1, 2014, or refinancing of that issue at that time and consider what interest rates will be in 2014 in evaluating a redemption and issuance in 2011.

Sincerely,

BYP 10-5 COMMUNICATION ACTIVITY

To: Ken Robson

From: I. M. Student

Subject: Bond Financing

(a) The advantages of bond financing over equity financing include:

1. Shareholder control is not affected.
2. Tax savings result.
3. Earnings per share of ordinary shares may be higher.

(b) The types of bonds that may be issued are:

1. Secured or unsecured bonds. Secured bonds have specific assets of the issuer pledged as collateral. Unsecured bonds are issued against the general credit of the borrower.
2. Term or serial bonds. Term bonds mature at a single specified date, while serial bonds mature in installments.
3. Registered or bearer bonds. Registered bonds are issued in the name of the owner, while bearer bonds are not.
4. Convertible bonds, which can be converted by the bondholder into ordinary shares.
5. Callable bonds, which are subject to early retirement by the issuer at a stated amount.

(c) State laws grant corporations the power to issue bonds after formal approval by the board of directors and shareholders. The terms of the bond issue are set forth in a legal document called a bond indenture. After the bond indenture is prepared, bond certificates are printed.

BYP 10-6 ETHICS CASE

(a) The stakeholders in the Galena case are:

- **Sam Farr, president, founder, and majority shareholder.**
- **Jill Hutton, minority shareholder.**
- **Other minority shareholders.**
- **Existing creditors (debt holders).**
- **Future bondholders.**
- **Employees, suppliers, and customers.**

(b) The ethical issues:

The desires of the majority shareholder (Sam Farr) versus the desires of the minority shareholders (Jill Hutton and others).

Doing what is right for the company and others versus doing what is best for oneself.

Questions:

Is what Sam wants to do legal? Is it unethical? Is Sam's action brash and irresponsible? Who may benefit/suffer if Sam arranges a high-risk bond issue? Who may benefit/suffer if Jill Hutton gains control of Galena?

(c) The rationale provided by the student will be more important than the specific position because this is a borderline case with no *right* answer.

CHAPTER 11

Corporations: Organization, Share Transactions, Dividends, and Retained Earnings

ASSIGNMENT CLASSIFICATION TABLE

Study Objectives	Questions	Brief Exercises	Do It!	Exercises	A Problems	B Problems
1. Identify the major characteristics of a corporation.	1, 2, 3, 4, 5, 6	1	1, 2	1, 2		
2. Record the issuance of ordinary shares.	7, 8, 9, 10, 11	2, 3, 4	3	2, 3, 4, 7, 8, 11, 12	1A, 3A, 6A	1B, 3B
3. Explain the accounting for treasury shares.	12, 13, 14	5	4	5, 7, 9 11, 12	2A, 3A, 6A	2B, 3B
4. Differentiate preference shares from ordinary shares.	15	6		6, 7, 10, 11, 12, 24	1A, 3A, 6A	1B, 3B
5. Prepare the entries for cash dividends and share dividends.	17, 18, 19, 20, 21, 22	7, 8, 9	5, 6	13, 14, 15, 16, 25	4A, 5A, 7A	4B, 6B
6. Identify the items that are reported in a retained earnings statement.	16, 23, 24	10, 11	7	17, 18	5A	5B, 6B
7. Prepare and analyze a comprehensive equity section.		12	8	10, 11, 19, 20, 21, 22, 23, 25	1A, 2A, 3A, 4A, 5A, 6A, 7A, 8A	1B, 2B, 3B, 4B, 5B, 6B, 7B
*8. Describe the use and content of the statement of changes in equity.					9A	
*9 Compute book value per share.	25, 26	13		23, 24, 25	3A, 8A	3B, 7B

***Note:** All **asterisked** Questions, Exercises, and Problems relate to material contained in the appendix to the chapter.

ASSIGNMENT CHARACTERISTICS TABLE

Problem Number	Description	Difficulty Level	Time Allotted (min.)
1A	Journalize share transactions, post, and prepare share capital section.	Simple	30–40
2A	Journalize and post treasury share transactions, and prepare equity section.	Moderate	25–35
3A	Journalize and post transactions, prepare equity section.	Moderate	40–50
4A	Prepare dividend entries and equity section.	Moderate	30–40
5A	Prepare retained earnings statement and equity section, and compute earnings per share.	Moderate	30–40
6A	Prepare entries for share transactions and equity section.	Moderate	30–40
7A	Prepare dividend entries and equity section.	Moderate	30–40
*8A	Prepare equity section; compute book value per share.	Simple	20–30
*9A	Prepare statement of changes in equity.	Simple	20–30
1B	Journalize share transactions, post, and prepare share capital section.	Simple	30–40
2B	Journalize and post treasury share transactions, and prepare equity section.	Moderate	25–35
3B	Journalize and post transactions, prepare equity section.	Moderate	40–50
4B	Prepare dividend entries and equity section.	Moderate	30–40
5B	Prepare retained earnings statement and equity section.	Moderate	30–40
6B	Prepare retained earnings statement and equity section, and compute earnings per share.	Moderate	30–40
*7B	Prepare equity section; compute book value per share.	Simple	20–30

WEYGANDT IFRS 1E
CHAPTER 11
CORPORATIONS: ORGANIZATION, SHARE TRANSACTIONS, DIVIDENDS, AND RETAINED EARNINGS

Number	SO	BT	Difficulty	Time (min.)
BE1	1	K	Simple	4–6
BE2	2	AP	Simple	2–3
BE3	2	AP	Simple	2–3
BE4	2	AP	Simple	2–4
BE5	3	AP	Simple	4–6
BE6	4	AP	Simple	2–3
BE7	5	AP	Simple	2–4
BE8	5	AP	Simple	4–6
BE9	5	AP	Simple	6–8
BE10	6	AP	Simple	3–5
BE11	6	AP	Simple	4–6
BE12	7	AP	Simple	4–6
BE13	9	AP	Simple	2–4
DI1	1	K	Simple	2–4
DI2	1	AP	Simple	4–6
DI3	2	AP	Simple	4–6
DI4	3	AP	Simple	4–6
DI5	5	AP	Simple	6–8
DI6	5	AP	Simple	6–8
DI7	6	AP	Simple	4–6
DI8	7	AP	Simple	6–8
EX1	1	K	Simple	6–8
EX2	1, 2	K	Simple	6–8
EX3	2	AP	Simple	6–8
EX4	2	AP	Simple	8–10
EX5	3	AP	Simple	8–10
EX6	4	AP	Simple	6–8
EX7	2–4	AP	Simple	6–8
EX8	2	AP	Simple	4–6
EX9	3	AP	Simple	8–10
EX10	4, 7	AP	Simple	8–10
EX11	2–4, 7	C, AP	Simple	6–8
EX12	2–4	AN	Moderate	8–10
EX13	5	AP	Simple	6–8
EX14	5	AP	Simple	4–6

CORPORATIONS: ORGANIZATION, SHARE TRANSACTIONS, DIVIDENDS, AND RETAINED EARNINGS

Number	SO	BT	Difficulty	Time (min.)
EX15	5	AP	Simple	6–8
EX16	5	AN	Moderate	5–7
EX17	6	AP	Simple	4–6
EX18	6	AP	Simple	4–6
EX19	7	AP	Simple	4–6
EX20	7	AP	Simple	8–10
EX21	7	AP	Simple	6–8
EX22	7	AP	Simple	6–8
EX23	7, 9	AP	Simple	10–12
EX24	4, 9	AP	Simple	6–8
EX25	5, 7, 9	AP	Simple	8–10
P1A	2, 4, 7	AP	Simple	30–40
P2A	3, 7	AP	Moderate	25–35
P3A	2–4, 7, 9	AP	Moderate	40–50
P4A	5, 7	AP	Moderate	30–40
P5A	5, 6, 7	AP	Simple	20–30
P6A	2–4, 7	AP	Moderate	20–30
P7A	5, 7	AP	Moderate	30–40
P8A	7, 9	AP	Simple	20–30
P9A	8	AP	Simple	20–30
P1B	2, 4, 7	AP	Simple	30–40
P2B	3, 7	AP	Moderate	25–35
P3B	2–4, 7, 9	AP	Moderate	40–50
P4B	5, 7	AP	Moderate	30–40
P5B	6, 7	AP	Moderate	30–40
P6B	5, 6, 7	AP	Moderate	30–40
P7B	7, 9	AP	Simple	20–30
BYP1	1	AP	Simple	10–15
BYP2	7, 9	AN	Simple	15–20
BYP3	3	AN	Simple	15–20
BYP4	1, 3, 4	C	Moderate	15–20
BYP5	1, 4	S	Simple	10–15
BYP6	—	E	Simple	10–15

BLOOM'S TAXONOMY TABLE

Correlation Chart between Bloom's Taxonomy, Study Objectives and End-of-Chapter Exercises and Problems

Study Objective	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
1. Identify the major characteristics of a corporation.	Q11-4 DI11-1 Q11-5 E11-1 Q11-6 E11-2 BE11-1	Q11-1 Q11-2 Q11-3 BE11-1	DI11-2			
2. Record the issuance of ordinary shares.	E11-2	Q11-8 Q11-9 Q11-10 Q11-11 E11-11	Q11-7 E11-3 P11-3A BE11-2 E11-4 P11-6A BE11-3 E11-7 P11-1B BE11-4 E11-8 P11-3B DI11-3 P11-1A	E11-12		
3. Explain the accounting for treasury shares.		Q11-12 Q11-13 Q11-14 E11-11	BE11-5 E11-9 P11-2B DI11-4 P11-2A P11-3B E11-5 P11-3A E11-7 P11-6A	E11-12		
4. Differentiate preference shares from ordinary shares.		Q11-15 E11-11	BE11-6 E11-24 P11-1B E11-6 P11-1A P11-3B E11-7 P11-3A E11-10 P11-6A	E11-12		
5. Prepare the entries for cash dividends and share dividends.		Q11-17 Q11-22 Q11-18 Q11-19 Q11-20 Q11-21	BE11-7 E11-6 P11-4A BE11-8 E11-13 P11-5A BE11-9 E11-14 P11-7A DI11-5 E11-15 P11-4B DI11-6 E11-25 P11-6B	E11-16		
6. Identify the items that are reported in a retained earnings statement.		Q11-16 Q11-23 Q11-24	BE11-10 E11-17 P11-5B BE11-11 E11-18 P11-6B DI11-7 P11-5A			
7. Prepare and analyze a comprehensive equity section.		E11-11 E11-13	BE11-12 P11-1A P11-2B DI11-8 P11-2A P11-3B E11-10 P11-3A P11-4B E11-19 P11-4A P11-5B E11-20 P11-5A P11-6B E11-21 P11-6A P11-7B E11-22 P11-7A E11-23 P11-8A E11-25 P11-1B			
*8. Describe the use and content of the statement of changes in equity.			P11-9A E11-23			
*9. Compute book value per share.	Q11-26	Q11-25	BE11-13 E11-25 P11-3B E11-23 P11-3A P11-7B E11-24 P11-8A			
Broadening Your Perspective		Research Case Exploring the Web	Financial Reporting Comparative Analysis Communication A Global Focus		Interpreting Financial Statements Group Decision	Ethics Case Cookie Chronicle

ANSWERS TO QUESTIONS

1. (a) Separate legal existence. A corporation is separate and distinct from its owners and it acts in its own name rather than in the name of its shareholders. In contrast to a partnership, the acts of the owners (shareholders) do not bind the corporation unless the owners are duly appointed agents of the corporation.

(b) Limited liability of shareholders. Because of its separate legal existence, creditors of a corporation ordinarily have recourse only to corporate assets to satisfy their claims. Thus, the liability of shareholders is normally limited to their investment in the corporation.

(c) Transferable ownership rights. Ownership of a corporation is held in capital shares. The shares are transferable units. Shareholders may dispose of part or all of their interest by simply selling their shares. The transfer of ownership to another party is entirely at the discretion of the shareholder.

2. (a) Corporation management is an advantage to a corporation because it can hire professional managers to run the company. Corporation management is a disadvantage to a corporation because it prevents owners from having an active role in directly managing the company.

(b) Two other disadvantages of a corporation are government regulations and additional taxes. A corporation is subject to numerous regulations. For example, securities laws govern the sale of shares to the general public. Corporations must pay income taxes. These taxes are substantial. In addition, shareholders must pay income taxes on cash dividends received.

3. No, Kari is not correct. A corporation must be incorporated in only one state. It is to the company's advantage to incorporate in a state whose laws are favorable to the corporate form of business organization. A corporation may incorporate in a state in which it does not have a headquarters office or major operating facilities.

4. In the absence of restrictive provisions, the basic ownership rights of ordinary shareholders are the rights to:

(1) vote in the election of the board of directors and on corporate actions that require shareholders' approval.
(2) share in corporate earnings.
(3) maintain the same percentage ownership when additional ordinary shares are issued (the preemptive right).
(4) share in assets upon liquidation.

5. Legally, a corporation is an entity, separate and distinct from its owners. As a legal entity, a corporation has most of the privileges and is subject to the same duties and responsibilities as a person. The corporation acts under its own name rather than under the names of its shareholders. A corporation may buy, own, and sell property, borrow money, enter into legally binding contracts, and sue or be sued.

6. (a) The two principal components of equity for a corporation are share capital (the investment of cash and other assets in the corporation by shareholders in exchange for share capital) and retained earnings. The principal source of retained earnings is net income.

(b) Share capital is the term used to describe the total amount paid-in for shares. Share capital may result through the sale of ordinary shares, preference shares, or treasury shares.

7. The maximum number of shares that a corporation is legally allowed to issue is the number authorized. Sokol Corporation is authorized to sell 100,000 shares. Of these shares, 80,000 shares have been issued. Outstanding shares are those issued shares which have not been reacquired by the corporation; in other words, issued shares less treasury shares. Sokol has 73,000 shares outstanding (80,000 issued less 7,000 treasury).

8. The par value of ordianry shares has no effect on its market value. Par value is a legal amount per share which usually indicates the minimum amount at which a share can be issued. The market value depends on a number of factors, including the company's anticipated future earnings, its expected dividend rate per share, its current financial position, the current state of the economy, and the current state of the securities markets. Therefore, either investment mentioned in the question could be the better investment, based on the above factors and future potential. The relative par values should have no effect on the investment decision.

9. Among the factors which influence the market value of shares are the company's anticipated future earnings, its expected dividend rate per share, its current financial position, the current state of the economy, and the current state of the securities markets.

10. The sale of ordinary shares below par value is not permitted in most states.

11. When shares are issued for services or noncash assets, the cost should be measured at either the fair value of the consideration given up (in this case, the shares) or the fair value of the consideration received (in this case, the land), whichever is more clearly evident. In this case, the fair value of the shares is more objectively determinable than that of the land, since the shares are actively traded in the securities market. The appraised value of the land is merely an estimate of the land's value, while the market price of the shares is the amount each share was actually worth on the date of exchange. Therefore, the land should be recorded at $90,000, the share capital—ordinary at $20,000, and the excess ($70,000) as share premium—ordinary.

12. A corporation may acquire treasury shares: (1) to reissue the shares to officers and employees under bonus and share compensation plans, (2) to increase trading of the company's share in the securities market in the hopes of enhancing its market value, (3) to have additional shares available for use in the acquisition of other companies, (4) to reduce the number of shares outstanding and, thereby, increase earnings per share, and (5) to rid the company of disgruntled investors.

13. When treasury shares are purchased, Treasury shares is debited and Cash is credited at cost (€12,000 in this example). Treasury shares is a contra equity account and cash is an asset. Thus, this transaction: (a) has no effect on net income, (b) decreases total assets, (c) has no effect on retained earnings, and (d) decreases total equity.

14. When treasury shares are resold at a price above original cost, Cash is debited for the amount of the proceeds (€15,000), Treasury Shares is credited at cost (€12,000), and the excess (€3,000) is credited to Share Premium-Treasury. Cash is an asset, and the other two accounts are part of equity. Therefore, this transaction: (a) has no effect on net income, (b) increases total assets, (c) has no effect on retained earnings, and (d) increases total equity.

15. (a) Ordinary shares and preference shares both represent ownership of the corporation. Ordinary shares signifies the basic residual ownership; preference shares is ownership with certain privileges or preferences. Preference shareholders typically have a preference as to dividends and as to assets in the event of liquidation. However, preference shareholders generally do not have voting rights.
(b) Some preference shares possess the additional feature of being cumulative. Most preference shares are cumulative—preference shareholders must be paid both current-year dividends and unpaid prior year dividends before ordinary shareholders receive any dividends.
(c) Dividends in arrears are disclosed in the notes to the financial statements.

16. The debits and credits to retained earnings are:

	Debits		Credits
1.	Net loss	1.	Net income
2.	Prior period adjustments for overstatements of net income	2.	Prior period adjustments for understatements of net income
3.	Cash and share dividends		
4.	Some disposals of treasury shares		

17. For a cash dividend to be paid, a corporation must have retained earnings, adequate cash, and a dividend declared by the board.

18. May 1 is the date on which the board of directors formally declares (authorizes) and announces the cash dividend. May 15 is the record date which marks the time when ownership of outstanding shares is determined for dividend purposes from the shareholders' records. May 31 is the date when the dividend checks are mailed to shareholders. Accounting entries are made on May 1 (debit Cash Dividends and credit Dividends Payable), and on May 31 (debit Dividends Payable and credit Cash).

19. A cash dividend decreases assets, retained earnings, and total equity. A share dividend decreases retained earnings, increases share capital and share premium, and has no effect on total assets and total equity.

20. A corporation generally issues share dividends for one of the following reasons:
(1) To satisfy shareholders' dividend expectations without spending cash.
(2) To increase the marketability of its shares by increasing the number of shares outstanding and thereby decreasing the market price per share. Decreasing the market price of the shares makes the shares easier to purchase for smaller investors.
(3) To emphasize that a portion of equity that had been reported as retained earnings has been permanently reinvested in the business and therefore is unavailable for cash dividends.

21. In a share split, the number of shares is increased in the same proportion that par value is decreased. Thus, in the Fields Corporation the number of shares will increase to 40,000 = (20,000 X 2) and the par value will decrease to $5 = ($10 ÷ 2). The effect of a split on market value is generally inversely proportional to the size of the split. In this case, the market price would fall to approximately $60 per share ($120 ÷ 2).

22. The different effects of a share split versus a share dividend are:

Item	Share Split	Share Dividend
Total retained earnings	No change	Decrease
Total par value (ordinary shares)	No change	Increase
Par value per share	Decrease	No Change

23. A prior period adjustment is a correction of an error in reporting income of a prior period. The correction is reported in the current year's retained earnings statement as an adjustment of the beginning balance of retained earnings.

24. The purpose of a retained earnings restriction is to indicate that a portion of retained earnings is currently unavailable for dividends. Restrictions may result from the following causes: legal, contractual, or voluntary.

***25.** The formula for computing book value per share when a corporation has only ordinary shares outstanding is:

$$\text{Total Ordinary Shareholders' Equity} \div \text{Number of Ordinary Shares Outstanding} = \text{Book Value per Share}$$

Book value per share represents the equity an ordinary shareholder has in the net assets of the corporation from owning one share.

***26.** Par value is a legal amount per share, often set at an arbitrarily selected amount, which usually indicates the minimum amount at which a share can be issued. Book value per share represents the equity an ordinary shareholder has in the net assets of the corporation from owning one share. If the corporation has been reinvesting some of its earnings over the years, or if the share was originally issued above par, or both, the book value per share will exceed the par value. Market value is generally unrelated to par value and at best is only remotely related to book value. A share's market value will reflect many factors, including the company's anticipated future earnings, its expected dividend rate per share, its current financial position, the current state of the economy, and the current state of the securities markets.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 11-1

The advantages and disadvantages of a corporation are as follows:

Advantages	Disadvantages
Separate legal existence	Corporation management—separation of ownership and management
Limited liability of shareholders	Government regulations
Transferable ownership rights	Additional taxes
Ability to acquire capital	
Continuous life	
Corporation management—professional managers	

BRIEF EXERCISE 11-2

May 10	Cash (1,000 X $18)	18,000	
	Share Capital—Ordinary (1,000 X $10)		10,000
	Share Premium—Ordinary (1,000 X $8)		8,000

BRIEF EXERCISE 11-3

June 1	Cash (3,000 X ¥7)	21,000	
	Share Capital—Ordinary (3,000 X ¥1)		3,000
	Share Premium—Ordinary (3,000 X ¥6)		18,000

BRIEF EXERCISE 11-4

Land (5,000 X $16)	80,000	
Share Capital—Ordinary (5,000 X $10)		50,000
Share Premium—Ordinary (5,000 X $6)		30,000

BRIEF EXERCISE 11-5

July 1	Treasury Shares (500 X HK$90)	45,000	
	Cash		45,000
Sept. 1	Cash (300 X HK$110)	33,000	
	Treasury Shares (300 X HK$90)		27,000
	Share Premium—Treasury (300 X HK$20)		6,000

BRIEF EXERCISE 11-6

Cash (5,000 X $120)	600,000	
Share Capital—Preference (5,000 X $100)		500,000
Share Premium—Preference (5,000 X $20)		100,000

BRIEF EXERCISE 11-7

Nov. 1	Cash Dividends (50,000 X €1/share)	50,000	
	Dividends Payable		50,000
Dec. 31	Dividends Payable	50,000	
	Cash		50,000

BRIEF EXERCISE 11-8

Dec. 1	Share Dividends (6,000 X $16)	96,000	
	Ordinary Shares Dividends Distributable (6,000 X $10)		60,000
	Share Premium—Ordinary (6,000 X $6)		36,000
31	Ordinary Shares Dividends Distributable	60,000	
	Share Capital—Ordinary		60,000

BRIEF EXERCISE 11-9

		Before Dividend	After Dividend
(a)	Equity		
	Share Capital—Ordinary, £10 par	£2,000,000	£2,200,000
	Share Premium—Ordinary	—	80,000 (1)
	Retained earnings	300,000	20,000 (2)
	Total equity	£2,300,000	£2,300,000
(b)	Outstanding shares	200,000	220,000

(1) 20,000 X (£14 – £10)   (2) [£300,000 – (20,000 X £14)]

BRIEF EXERCISE 11-10

MOUNT INC.
Retained Earnings Statement
For the Year Ended December 31, 2011

Balance, January 1	$220,000
Add: Net income	120,000
	340,000
Less: Dividends	85,000
Balance, December 31	$255,000

BRIEF EXERCISE 11-11

OLA SMITH INC.
Retained Earnings Statement
For the Year Ended December 31, 2011

Balance, January 1, as reported		$800,000
Correction for overstatement of net income in prior period (depreciation expense error)		(50,000)
Balance, January 1, as adjusted		750,000
Add: Net income		150,000
		900,000
Less: Cash dividends	$90,000	
Share dividends	8,000	98,000
Balance, December 31		$802,000

BRIEF EXERCISE 11-12

Equity	
Share capital—ordinary, €10 par value, 5,000 shares issued and 4,500 shares outstanding	€50,000
Share premium—ordinary	10,000
Retained earnings	45,000
Less: Treasury shares (500 shares)	11,000
Total equity	€94,000

*BRIEF EXERCISE 11-13

Book value per share = ($810,000 ÷ 40,000) = $20.25

SOLUTIONS FOR DO IT! REVIEW EXERCISES

DO IT! 11-1

1. True.
2. True.
3. False. Additional government regulation is a disadvantage of the corporate form of business.
4. True.
5. False. No-par value shares are quite common today.

DO IT! 11-2

(a)	Income Summary	216,000	
	Retained Earnings		216,000
	(To close Income Summary and transfer net income to retained earnings)		

(b)	Equity		
	Share capital—ordinary	$1,000,000	
	Retained earnings	216,000	
	Total equity		$1,216,000

DO IT! 11-3

Apr. 1	Cash	780,000	
	Share Capital—Ordinary		300,000
	Share Premium—Ordinary		480,000
	(To record issuance of 60,000 shares at CHF13 per share)		
Apr. 19	Organization Expense	27,500	
	Share Capital—Ordinary		10,000
	Share Premium—Ordinary		17,500
	(To record issuance of 2,000 shares for attorney's fees)		

DO IT! 11-4

Aug. 1	Treasury Shares	120,000	
	Cash		120,000
	(To record the purchase of 2,000 shares at $60 per share)		
Dec. 1	Cash	86,400	
	Treasury Shares		72,000
	Share Premium—Treasury		14,400
	(To record the sale of 1,200 shares at $72 per share)		

DO IT! 11-5

1. The company has not missed past dividends and the preference shares are noncumulative; thus, the preference shareholders are paid only this year's dividend. The dividend paid to preference shareholders would be €21,000 (3,000 X .07 X €100). The dividend paid to ordinary shareholders would be €84,000 (€105,000 – €21,000).

2. The preference shares are noncumulative; thus, past unpaid dividends do not have to be paid. The dividend paid to preference shareholders would be €21,000 (3,000 X .07 X €100). The dividend paid to ordinary shareholders would be €84,000 (€105,000 – €21,000).

3. The preference shares are cumulative; thus, dividends that have been missed in the past (dividends in arrears) must be paid. The dividend paid to preference shareholders would be €63,000 (3 X 3,000 X .07 X €100). The dividend paid to ordinary shareholders would be €42,000 (€105,000 – €63,000).

DO IT! 11-6

(a) 1. The share dividend amount is $3,060,000 [(400,000 X 15%) X $51]. The new balance in retained earnings is $8,940,000 ($12,000,000 – $3,060,000).

2. The retained earnings after the share split would be the same as it was before the split: $12,000,000.

(b) (1) and (2) The effects on the equity accounts are as follows:

	Original Balances	After Dividend	After Split
Share capital and share premium	$ 2,400,000	$ 5,460,000	$ 2,400,000
Retained earnings	12,000,000	8,940,000	12,000,000
Total equity	$14,400,000	$14,400,000	$14,400,000
Shares outstanding	400,000	460,000	800,000

Total equity remains the same under both options.

DO IT! 11-7

ALPHA CENTURI CORPORATION
Retained Earnings Statement
For the Year Ended December 31, 2011

Balance, January 1, as reported	€3,100,000
Correction for understatement of net income in prior period (depreciation error)	110,000
Balance, January 1, as adjusted	3,210,000
Add: Net income	1,200,000
	4,410,000
Less: Cash dividends	150,000
Balance, December 31	€4,260,000

DO IT! 11-8

(a)

	2010	2011
Return on ordinary shareholders' equity	$\dfrac{(\$200{,}000 - \$30{,}000)}{(\$600{,}000 + \$750{,}000)/2} = 25.2\%$	$\dfrac{(\$210{,}000 - \$30{,}000)}{(\$750{,}000 + \$830{,}000)/2} = 22.8\%$

(b) **Between 2010 and 2011, return on ordinary shareholders' equity decreased from 25% to 23%. It is important to note that net income increased slightly (5%) during this period. This small increase did not produce an increase in the return on shareholders' equity because the company increased it ordinary shareholders' equity by more than 10%.**

SOLUTIONS TO EXERCISES

EXERCISE 11-1

1. **True.**
2. **True.**
3. **False. Most of the largest U.S. corporations are *publicly* held corporations.**
4. **True.**
5. **False. The net income of a corporation *is* taxed as a separate entity.**
6. **False. Creditors have *no* legal claim on the personal assets of the owners of a corporation if the corporation does not pay its debts.**
7. **False. The transfer of shares from one owner to another *does not require* the approval of either the corporation or other shareholders; *it is entirely at the discretion of the shareholder.***
8. **False. The board of directors of a corporation *manages* the corporation *for the shareholders, who legally own the corporation.***
9. **True.**
10. **False. Corporations are subject to *more* regulation than partnerships or proprietorships.**

EXERCISE 11-2

1. **True.**
2. **False. *Corporation management* (*separation of ownership and management*), government regulations, and additional taxes are the major disadvantages of a corporation.**
3. **False. When a corporation is formed, organization costs are expensed as incurred.**
4. **True.**
5. **False. The number of issued shares is always *less* than or equal to the number of authorized shares.**
6. **False. *No* journal entry is required for the authorization of ordinary shares.**
7. **False. Publicly held corporations usually issue shares *indirectly through an investment banking firm.***

EXERCISE 11-2 (Continued)

8. True.
9. False. The market value of ordinary shares *has no relationship with the* par value.
10. False. *Share capital* is the total amount of cash and other assets paid in to the corporation by shareholders in exchange for shares.

EXERCISE 11-3

(a)	Jan. 10	Cash (70,000 X Rs5)	350,000	
		Share Capital—Ordinary		350,000
	July 1	Cash (40,000 X Rs8)	320,000	
		Share Capital—Ordinary (40,000 X Rs5)		200,000
		Share Premium—Ordinary (40,000 X Rs3)		120,000
(b)	Jan. 10	Cash (70,000 X Rs5)	350,000	
		Share Capital—Ordinary (70,000 X Rs1)		70,000
		Share Premium—Ordinary (70,000 X Rs4)		280,000
	July 1	Cash (40,000 X Rs8)	320,000	
		Share Capital—Ordinary (40,000 X Rs1)		40,000
		Share Premium—Ordinary (40,000 X Rs7)		280,000

EXERCISE 11-4

(a)	Cash	52,000	
	Share Capital—Ordinary (1,000 X $5)		5,000
	Share Premium—Ordinary		47,000
(b)	Cash	52,000	
	Share Capital—Ordinary (1,000 X $5)		5,000
	Share Premium—Ordinary		47,000

EXERCISE 11-4 (Continued)

		Debit	Credit
(c)	Cash	52,000	
	Share Capital—Ordinary		52,000
(d)	Organization Expense	52,000	
	Share Capital—Ordinary (1,000 X $5)		5,000
	Share Premium—Ordinary		47,000
(e)	Land	52,000	
	Share Capital—Ordinary (1,000 X $5)		5,000
	Share Premium—Ordinary		47,000

EXERCISE 11-5

Treasury Shares	250,000	
Cash		250,000
Cash (2,000 X ¥54)	108,000	
Treasury Shares (2,000 X ¥50)		100,000
Share Premium—Treasury		8,000
Cash (2,000 X ¥49)	98,000	
Share Premium—Treasury	2,000	
Treasury Shares (2,000 X ¥50)		100,000
Cash (1,000 X ¥40)	40,000	
Share Premium—Treasury (¥8,000 – ¥2,000)	6,000	
Retained Earnings	4,000	
Treasury Shares (1,000 X ¥50)		50,000

EXERCISE 11-6

(a)	Cash	2,100,000	
	Share Capital—Preference (100,000 X $20)		2,000,000
	Share Premium—Preference		100,000

(b)	Total Dividend	$ 500,000
	Less: Preference Shares Dividend ($2,000,000 X 8%)	160,000
	Ordinary Shares Dividends	$ 340,000

(c)	Total Dividend	$ 500,000
	Less: Preference Shares Dividend [($2,000,000 X 8%) X 3]	480,000
	Ordinary Shares Dividends	$ 20,000

EXERCISE 11-7

Mar. 2	Organization Expense	30,000	
	Share Capital—Ordinary (5,000 X R$1)		5,000
	Share Premium—Ordinary		25,000
June 12	Cash	375,000	
	Share Capital—Ordinary (60,000 X R$1)		60,000
	Share Premium—Ordinary		315,000
July 11	Cash (1,000 X R$110)	110,000	
	Share Capital—Preference (1,000 X R$100)		100,000
	Share Premium—Preference (1,000 X R$10)		10,000
Nov. 28	Treasury Shares	80,000	
	Cash		80,000

EXERCISE 11-8

1.	Land		110,000	
	Share Capital—Ordinary (5,000 X $20)			100,000
	Share Premium—Ordinary			10,000
2.	Land (20,000 X $11)		220,000	
	Share Capital—Ordinary (20,000 X $10)			200,000
	Share Premium—Ordinary (20,000 X $1)			20,000

EXERCISE 11-9

(a)	Mar. 1	Treasury Shares (50,000 X £16)	800,000	
		Cash		800,000
	July 1	Cash (10,000 X £17)	170,000	
		Treasury Shares (10,000 X £16)		160,000
		Share Premium—Treasury (10,000 X £1)		10,000
	Sept. 1	Cash (8,000 X £15)	120,000	
		Share Premium—Treasury (8,000 X £1)	8,000	
		Treasury Shares (8,000 X £16)		128,000
(b)	Sept. 1	Cash (8,000 X £13)	104,000	
		Share Premium—Treasury	10,000	
		Retained Earnings	14,000	
		Treasury Shares (8,000 X £16)		128,000

EXERCISE 11-10

(a)	Feb. 1	Cash (20,000 X $51)................................	1,020,000	
		Share Capital—Preference (20,000 X $50)		1,000,000
		Share Premium—Preference (20,000 X $1).................................		20,000
	July 1	Cash (10,000 X $57)................................	570,000	
		Share Capital—Preference (10,000 X $50)		500,000
		Share Premium—Preference (10,000 X $7).................................		70,000

(b)

Share Capital—Preference

Date	Explanation	Ref.	Debit	Credit	Balance
Feb. 1				1,000,000	1,000,000
July 1				500,000	1,500,000

Share Premium—Preference

Date	Explanation	Ref.	Debit	Credit	Balance
Feb. 1				20,000	20,000
July 1				70,000	90,000

(c) Share capital—preference—listed first in the equity section.

Share premium—preference—listed first in a series of types of share premium.

EXERCISE 11-11

MEMO

To: President __________

From: Your name, Chief Accountant

Re: Questions about Equity Section

Your memorandum about the equity section was received this morning. I hope the following will answer your questions.

(a) Ordinary shares outstanding is 588,000 shares. (Issued shares 600,000 less treasury shares 12,000.)

(b) The stated value of the ordinary shares is €2 per share. (Ordinary shares issued €1,200,000 ÷ 600,000 shares.)

(c) The par value of the preference shares is €100 per share. (Preference shares €600,000 ÷ 6,000 shares.)

(d) The dividend rate is 5%, or (€30,000 ÷ €600,000).

(e) The Retained Earnings balance is still €1,858,000. Cumulative dividends in arrears are only disclosed in the notes to the financial statements.

If I can be of further help, please contact me.

EXERCISE 11-12

May	2	Cash (10,000 X $12)	120,000	
		Share Capital—Ordinary (10,000 X $10)		100,000
		Share premium—Ordinary (10,000 X $2)		20,000
	10	Cash	600,000	
		Share Capital—Preference (10,000 X $50)		500,000
		Share Premium—Preference (10,000 X $10)		100,000
	15	Treasury Shares	14,000	
		Cash		14,000
	31	Cash (500 X $16)	8,000	
		Treasury Shares (500 X $14)		7,000
		Share Premium—Treasury (500 X $2)		1,000

EXERCISE 11-13

(a)	June	15	Cash Dividends (110,000 X €1)	110,000	
			Dividends Payable		110,000
	July	10	Dividends Payable	110,000	
			Cash		110,000
	Dec.	15	Cash Dividends (112,000 X €1.20)	134,400	
			Dividends Payable		134,400

(b) In the retained earnings statement, dividends of €244,400 will be deducted. In the statement of financial position, Dividends Payable of €134,400 will be reported as a current liability.

EXERCISE 11-14

1.	Share Dividends (24,000* X $18)	432,000	
	Ordinary Share Dividends Distributable (24,000 X $10)		240,000
	Share Premium—Ordinary (24,000 X $8)		192,000

*[($1,000,000 ÷ $10) + 60,000] X 15%.

2.	Share Dividends (39,000* X $20)	780,000	
	Ordinary Share Dividends Distributable (39,000 X $5)		195,000
	Share Premium—Ordinary (39,000 X $15)		585,000

*[($1,000,000 ÷ 5) + 60,000] X 15%.

EXERCISE 11-15

	Before Action	After Stock Dividend	After Stock Split
Equity			
Share capital—ordinary	CHF 600,000	CHF 630,000	CHF 600,000
Share premium—ordinary	0	12,000(1)	0
Retained earnings	900,000	858,000(2)	900,000
Total equity	CHF1,500,000	CHF1,500,000	CHF1,500,000
Outstanding shares	60,000	63,000	120,000

(1)3,000 X (CHF14 – CHF10) (2)CHF900,000 – (3,000 X CHF14)

EXERCISE 11-16

1.	Dec. 31	Cash Dividends	50,000	
		Interest Expense		50,000
2.	31	Share Dividends	6,000*	
		Dividends Payable	10,000	
		Ordinary Share Dividends Distributable		10,000
		Share Premium—Ordinary (€16 – €10) X 1,000		6,000

*(1,000 X €16) – €10,000

3.	31	Share Capital—Ordinary	2,000,000	
		Retained Earnings		2,000,000

EXERCISE 11-17

CASTLE CORPORATION
Retained Earnings Statement
For the Year Ended December 31, 2011

Balance, January 1, as reported		$550,000
Correction for overstatement of 2010 net income (depreciation error)		(30,000)
Balance, January 1, as adjusted		520,000
Add: Net income		350,000
		870,000
Less: Cash dividends	$120,000	
Share dividends	80,000	200,000
Balance, December 31		$670,000

EXERCISE 11-18

SAKARYA COMPANY
Retained Earnings Statement
For the Year Ended December 31, 2011

Balance, January 1, as reported		TL310,000
Correction for understatement of 2009 net income		20,000
Balance, January 1, as adjusted		330,000
Add: Net income		285,000
		615,000
Less: Cash dividends	TL100,000[1]	
Share dividends	150,000[2]	250,000
Balance, December 31		TL365,000

[1](200,000 X TL.50/sh) [2](200,000 X .05 X TL15/sh)

EXERCISE 11-19

Account	Share Capital	Share Premium	Retained Earnings	Other
Share Capital—Ordinary	X			
Share Capital—Preference	X			
Treasury Shares				X
Share Premium—Preference		X		
Share Premium—Ordinary		X		
Share Premium—Treasury		X		
Retained Earnings			X	

EXERCISE 11-20

TIGER INC.
Statement of Financial Position (Partial)
December 31, 200X

Equity	
Share capital—preference, 8%, ¥5 par value, 40,000 shares authorized, 30,000 shares issued	¥ 150,000
Share capital—ordinary, no par, ¥1 stated value, 400,000 shares authorized, 300,000 shares issued and 290,000 outstanding	300,000
Ordinary shares dividends distributable	60,000
Share premium—preference	344,000
Share premium—ordinary	1,200,000
Retained earnings (see Note R)	700,000
Less: Treasury shares (10,000 shares)	74,000
Total equity	¥2,680,000

Note R: Retained earnings is restricted for plant expansion, ¥100,000.

EXERCISE 11-21

KELLY GROUCUTT COMPANY
Statement of Financial Position (Partial)
December 31, 2011

Equity	
Share capital—preference	$125,000
Share capital—ordinary	400,000
Share premium—preference	75,000
Share premium—ordinary	100,000
Retained earnings	334,000*
Less: Treasury shares	40,000
Total equity	$ 994,000

*$250,000 + $140,000 – $56,000

EXERCISE 11-22

(a)

OSASCO CORPORATION
Income Statement
For the Year Ended December 31, 2011

Net sales	R$600,000
Cost of goods sold	360,000
Gross profit	240,000
Operating expenses	153,000
Income from operations	87,000
Interest expense	7,500
Income before income taxes	79,500
Income tax expense (30% X R$79,500)	23,850
Net income	R$ 55,650

(b) $$\frac{\text{Net income – Preference dividends}}{\text{Average ordinary shareholders' equity}} = \frac{\text{R\$55,650 – R\$15,000}}{\text{R\$200,000}} = \underline{\underline{20.3\%}}$$

*EXERCISE 11-23

ALUMINUM COMPANY OF AMERICA

(a) Equity (in millions of dollars)

Share capital—preference, $100 par value, $3.75,cumulative, 557,740 shares authorized, 557,649 shares issued and 546,024 shares outstanding	$ 56
Share capital—ordinary, $1 par value, 1,800,000,000 shares authorized, 924,600,000 issued and 844,800,000 shares outstanding	925
Share premium	6,101
Retained earnings	7,428
Less: Treasury shares	2,828
Total equity	$11,682

(b)

Total equity	$11,682
Less: Preference shares equity (par value)	56
Ordinary shares equity	$11,626
Ordinary shares outstanding (in millions)	844.8
Book value per share ($11,626 ÷ 844.8)	$13.76

***EXERCISE 11-24**

	(a)	(b)
Total equity	£3,000,000	£3,000,000
Less: Preference shares equity		
Par value	(£500,000)	
Call price (10,000 X £60)		(600,000)
Dividends in arrears (10,000 X £5)		(50,000)
Ordinary shares equity	£2,500,000	£2,350,000
Ordinary shares outstanding	200,000	200,000
Book value per share	£12.50	£11.75

***EXERCISE 11-25**

(a) 1. Book value before the share dividend was $7.50 ($300,000 ÷ 40,000).

2. Book value after the share dividend is $6.82 ($300,000 ÷ 44,000).

(b)

Share capital—ordinary	
Balance before dividend	$200,000
Dividend shares (4,000 X $5)	20,000
New balance	$220,000
Share premium—ordinary	
Balance before dividend	$ 25,000
Excess over par of shares issued (4,000 X $10)	40,000
New balance	$ 65,000
Retained earnings	
Balance before dividend	$ 75,000
Dividend (4,000 X $15)	60,000
New balance	$ 15,000

SOLUTIONS TO PROBLEMS

PROBLEM 11-1A

			Debit	Credit
(a)	Jan. 10	Cash (100,000 X HK$30)	3,000,000	
		Share Capital—Ordinary (100,000 X HK$20)		2,000,000
		Share Premium—Ordinary (100,000 X HK$10)		1,000,000
	Mar. 1	Cash (10,000 X HK$550)	5,500,000	
		Share Capital—Preference (10,000 X HK$500)		5,000,000
		Share Premium—Preference (10,000 X HK$50)		500,000
	Apr. 1	Land	850,000	
		Share Capital—Ordinary (25,000 X HK$20)		500,000
		Share Premium—Ordinary (HK$850,000 – HK$500,000)		350,000
	May 1	Cash (75,000 X HK$40)	3,000,000	
		Share Capital—Ordinary (75,000 X HK$20)		1,500,000
		Share Premium—Ordinary (75,000 X HK$20)		1,500,000
	Aug. 1	Organization Expense	500,000	
		Share Capital—Ordinary (10,000 X HK$20)		200,000
		Share Premium—Ordinary (HK$500,000 – HK$200,000)		300,000
	Sept. 1	Cash (5,000 X HK$60)	300,000	
		Share Capital—Ordinary (5,000 X HK$20)		100,000
		Share Premium—Ordinary (5,000 X HK$40)		200,000

PROBLEM 11-1A (Continued)

Nov. 1	Cash (2,000 X HK$580)	1,160,000	
	Share Capital—Preference (2,000 X HK$500)		1,000,000
	Share Premium—Preference (2,000 X HK$80)		160,000

(b)

Share Capital—Preference

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 1		J1		5,000,000	5,000,000
Nov. 1		J1		1,000,000	6,000,000

Share Capital—Ordinary

Date	Explanation	Ref.	Debit	Credit	Balance
Jan. 10		J1		2,000,000	2,000,000
Apr. 1		J1		500,000	2,500,000
May 1		J1		1,500,000	4,000,000
Aug. 1		J1		200,000	4,200,000
Sept. 1		J1		100,000	4,300,000

Share Premium—Preference

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 1		J1		500,000	500,000
Nov. 1		J1		160,000	660,000

Share Premium—Ordinary

Date	Explanation	Ref.	Debit	Credit	Balance
Jan. 10		J1		1,000,000	1,000,000
Apr. 1		J1		350,000	1,350,000
May 1		J1		1,500,000	2,850,000
Aug. 1		J1		300,000	3,150,000
Sept. 1		J1		200,000	3,350,000

PROBLEM 11-1A (Continued)

(c) **GAO CORPORATION**

Equity	
Share capital—preference	
6%, HK$500 par value,	
20,000 shares authorized,	
12,000 shares issued	**HK$6,000,000**
Share capital—ordinary, no par,	
HK$20 stated value,	
500,000 shares authorized,	
215,000 shares issued	**4,300,000**
Share premium—preference	**660,000**
Share premium—ordinary	**3,350,000**
Total share capital	**HK$14,310,000**

PROBLEM 11-2A

(a)

Mar.	1	Treasury Shares (5,000 X $7)	35,000	
		Cash		35,000
June	1	Cash (1,000 X $10)	10,000	
		Treasury Shares (1,000 X $7)		7,000
		Share Premium—Treasury (1,000 X $3)		3,000
Sept.	1	Cash (2,000 X $9)	18,000	
		Treasury Shares (2,000 X $7)		14,000
		Share Premium—Treasury (2,000 X $2)		4,000
Dec.	1	Cash (1,000 X $5)	5,000	
		Share Premium— Treasury (1,000 X $2)	2,000	
		Treasury Shares (1,000 X $7)		7,000
	31	Income Summary	60,000	
		Retained Earnings		60,000

(b)

Share Premium—Treasury

Date		Explanation	Ref.	Debit	Credit	Balance
June	1		J12		3,000	3,000
Sept.	1		J12		4,000	7,000
Dec.	1		J12	2,000		5,000

Treasury Shares

Date		Explanation	Ref.	Debit	Credit	Balance
Mar.	1		J12	35,000		35,000
June	1		J12		7,000	28,000
Sept.	1		J12		14,000	14,000
Dec.	1		J12		7,000	7,000

PROBLEM 11-2A (Continued)

Retained Earnings

Date		Explanation	Ref.	Debit	Credit	Balance
Jan.	1	Balance	✓			100,000
Dec.	31		J12		60,000	160,000

(c) **GREEVE CORPORATION**

Equity	
Share capital—ordinary, $1 par, 400,000 shares issued and 399,000 outstanding	$ 400,000
Share premium—ordinary	500,000
Share premium—treasury	5,000
Retained earnings	160,000
Less: Treasury shares (1,000 shares)	7,000
Total equity	$1,058,000

PROBLEM 11-3A

(a)

Feb.	1	Cash	25,000	
		Share Capital—Ordinary (3,000 X €5)		15,000
		Share Premium—Ordinary		10,000
Mar.	20	Treasury Shares (1,500 X €8)	12,000	
		Cash		12,000
June	14	Cash	36,000	
		Treasury Shares (4,000 X €8)		32,000
		Share Premium—Treasury		4,000
Sept.	3	Patent	17,000	
		Share Capital—Ordinary (2,000 X €5)		10,000
		Share Premium—Ordinary		7,000
Dec.	31	Income Summary	340,000	
		Retained Earnings		340,000

(b)

Share Capital—Preference

Date		Explanation	Ref.	Debit	Credit	Balance
Jan.	1	Balance	✓			300,000

Share Capital—Ordinary

Date		Explanation	Ref.	Debit	Credit	Balance
Jan.	1	Balance	✓			1,000,000
Feb.	1		J1		15,000	1,015,000
Sept.	3		J1		10,000	1,025,000

PROBLEM 11-3A (Continued)

Share Premium—Preference

Date		Explanation	Ref.	Debit	Credit	Balance
Jan.	1	Balance	✓			20,000

Share Premium—Ordinary

Date		Explanation	Ref.	Debit	Credit	Balance
Jan.	1	Balance	✓			425,000
Feb.	1		J1		10,000	435,000
Sept.	3		J1		7,000	442,000

Retained Earnings

Date		Explanation	Ref.	Debit	Credit	Balance
Jan.	1	Balance	✓			488,000
Dec.	31		J1		340,000	828,000

Treasury Shares

Date		Explanation	Ref.	Debit	Credit	Balance
Jan.	1	Balance	✓			40,000
Mar.	20		J1	12,000		52,000
June	14		J1		32,000	20,000

Share Premium—Treasury

Date		Explanation	Ref.	Debit	Credit	Balance
June	14		J1		4,000	4,000

PROBLEM 11-3A (Continued)

(c) **JAJOO CORPORATION**

Equity	
Share capital—preference, 10%, €100 par value, noncumulative, 5,000 shares authorized, 3,000 shares issued and outstanding	€ 300,000
Share capital—ordinary, no par, €5 stated value, 300,000 shares authorized, 205,000 shares issued and 202,500 shares outstanding	1,025,000
Share premium—preference	20,000
Share premium—ordinary	442,000
Share premium—treasury	4,000
Retained earnings	828,000
Less: Treasury shares (2,500 shares)	20,000
Total equity	€2,599,000

PROBLEM 11-4A

(a)	Feb. 1	Cash Dividends (60,000 X $1)	60,000	
		Dividends Payable		60,000
	Mar. 1	Dividends Payable	60,000	
		Cash		60,000
	Apr. 1	Memo—Five-for-one share split increases number of shares to 300,000 (60,000 X 5) and reduces par value to $4 per share.		
	July 1	Share Dividends (15,000* X $7)	105,000	
		Ordinary Share Dividends Distributable (15,000 X $4)		60,000
		Share Premium—Ordinary ($15,000 X $3)		45,000
		*300,000 shares X .05		
	31	Ordinary Share Dividends Distributable	60,000	
		Share Capital—Ordinary		60,000
	Dec. 1	Cash Dividends (315,000 X $.50)	157,500	
		Dividends Payable		157,500
	31	Income Summary	380,000	
		Retained Earnings		380,000
	31	Retained Earnings	217,500	
		Cash Dividends		217,500
	31	Retained Earnings	105,000	
		Share Dividends		105,000

(b)

Share Capital—Ordinary

Date	Explanation	Ref.	Debit	Credit	Balance
Jan. 1	Balance	✓			1,200,000
Apr. 1	5 for 1 split—new par $4				1,200,000
July 31				60,000	1,260,000

PROBLEM 11-4A (Continued)

Share Premium—Ordinary

Date	Explanation	Ref.	Debit	Credit	Balance
Jan. 1	Balance	✓			200,000
July 1				45,000	245,000

Retained Earnings

Date	Explanation	Ref.	Debit	Credit	Balance
Jan. 1	Balance	✓			500,000
Dec. 31	Cash dividends		217,500		282,500
Dec. 31	Share dividends		105,000		177,500
Dec. 31	Net income			380,000	557,500

Ordinary Share Dividends Distributable

Date	Explanation	Ref.	Debit	Credit	Balance
July 1				60,000	60,000
31			60,000		0

Cash Dividends

Date	Explanation	Ref.	Debit	Credit	Balance
Feb. 1			60,000		60,000
Dec. 1			157,500		217,500
Dec. 31				217,500	0

Share Dividends

Date	Explanation	Ref.	Debit	Credit	Balance
July 1			105,000		105,000
Dec. 31				105,000	0

(c) **GALACTICA CORPORATION**

Equity	
Share capital—ordinary, $4 par value, 315,000 shares issued and outstanding	$1,260,000
Share premium—ordinary	245,000
Retained earnings	557,500
Total equity	$2,062,500

PROBLEM 11-5A

(a)

Retained Earnings

Dec. 31	Cash Dividend	600,000	Jan. 1	Balance	2,450,000
Dec. 31	Share Dividend	*280,000	Dec. 31		795,000
			Dec. 31	Balance	2,365,000

*(400,000 X .10) X €7

(b)

NAKONA CORPORATION
Retained Earnings Statement
For the Year Ended December 31, 2011

Balance, January 1		€2,450,000
Add: Net income		795,000
		3,245,000
Less: Cash dividends	€600,000	
Share dividends	280,000	880,000
Balance, December 31		€2,365,000

(c)

NAKONA CORPORATION
Partial Statement of Financial Position
December 31, 2011

Equity	
Share capital—preference, 8%, €100 par value, noncumulative, callable at €125, 20,000 shares authorized, 10,000 shares issued and outstanding	€1,000,000
Share capital—ordinary, no par, €5 stated value, 600,000 shares authorized, 400,000 shares issued and outstanding	2,000,000
Ordinary shares dividends distributable	200,000

PROBLEM 11-5A (Continued)

NAKONA CORPORATION (Continued)

Share premium—preference	200,000
Share Premium—ordinary	1,100,000
Retained earnings (see Note A)	2,365,000
Total equity	€6,865,000

Note A: Retained earnings is restricted for plant expansion, €100,000.

(d) $\frac{€795,000 - €80,000^*}{325,000} = €2.20$

*10,000 X €8 = €80,000

(e) Total dividend	€600,000
Allocated to preference shares—current year only	80,000
Remainder to ordinary shares	€520,000

PROBLEM 11-6A

(a)

1.	Land	296,000	
	Share Capital—Preference (2,400 X $100)		240,000
	Share Premium—Preference		56,000
2.	Cash ($2,000,000 + $5,700,000)	7,700,000	
	Share Capital—Ordinary (400,000 X $5)		2,000,000
	Share Premium—Ordinary		5,700,000
3.	Treasury Shares—Ordinary (1,500 X $22)	33,000	
	Cash		33,000
4.	Cash (500 X $28)	14,000	
	Treasury Shares—Ordinary (500 X $22)		11,000
	Share Premium—Treasury (500 X $6)		3,000

(b) ARNOLD CORPORATION

Equity	
Share capital—preference 8%, $100 par value, noncumulative, 40,000 shares authorized, 2,400 shares issued and outstanding	$ 240,000
Share capital—ordinary, no par, $5.00 stated value, 2,000,000 shares authorized, 400,000 shares issued, and 399,000 outstanding	2,000,000

PROBLEM 11-6A (Continued)

ARNOLD CORPORATION (Continued)

Share premium—preference	56,000
Share premium—ordinary	5,700,000
Share premium—treasury	3,000
Retained earnings	560,000
Less: Treasury shares	
(1,000 shares)	22,000
Total equity	$8,537,000

PROBLEM 11-7A

(a)	Jan. 15	Cash Dividends (90,000 X £1)	90,000	
		Dividends Payable		90,000
	Feb. 15	Dividends Payable	90,000	
		Cash		90,000
	Apr. 15	Share Dividends (9,000 X £15)	135,000	
		Ordinary Share Dividends Distributable (9,000 X £10)		90,000
		Share Premium—Ordinary (9,000 X £5)		45,000
	May 15	Ordinary Share Dividends Distributable	90,000	
		Share Capital—Ordinary (9,000 X £10)		90,000
	July 1	Memo—two-for-one share split increases the number of shares outstanding to 198,000, or (99,000 X 2) and reduces the par value to £5 per share.		
	Dec. 1	Cash Dividends (198,000 X £.50)	99,000	
		Dividends Payable		99,000
	31	Income Summary	250,000	
		Retained Earnings		250,000
	31	Retained Earnings	189,000	
		Cash Dividends		189,000
	31	Retained Earnings	135,000	
		Share Dividends		135,000

PROBLEM 11-7A (Continued)

(b)

Share Capital—Ordinary

Date		Explanation	Ref.	Debit	Credit	Balance
Jan.	1	Balance	✓			900,000
May	15				90,000	990,000
July	1	2 for 1 share split— new par value = £5				

Share Premium—Ordinary

Date		Explanation	Ref.	Debit	Credit	Balance
Jan.	1	Balance	✓			200,000
Apr.	15				45,000	245,000

Retained Earnings

Date		Explanation	Ref.	Debit	Credit	Balance
Jan.	1	Balance	✓			540,000
Dec.	31	Cash dividends		189,000		351,000
Apr.	15	Share dividends		135,000		216,000
	31	Net income			250,000	466,000

Cash Dividends

Date	Explanation	Ref.	Debit	Credit	Balance
Jan. 1			90,000		90,000
Dec. 1			99,000		189,000
Dec. 31				189,000	0

Share Dividends

Date	Explanation	Ref.	Debit	Credit	Balance
Apr. 15			135,000		135,000
Dec. 31				135,000	0

Ordinary Share Dividends Distributable

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	15				90,000	90,000
May	15			90,000		0

PROBLEM 11-7A (Continued)

(c)

SNIDER CORPORATION
Statement of Financial Position (Partial)
December 31, 2011

Equity	
Share capital—ordinary, £5 par value, 198,000 shares issued and outstanding	£ 990,000
Share premium—ordinary	245,000
Retained earnings	466,000
Total equity	£1,701,000

PROBLEM 11-8A

(a) **MCGRATH CORPORATION**

Equity	
Share capital—preference, 8%, $100 par value, noncumulative, 4,000 shares issued and outstanding	$ 400,000
Share capital—ordinary, no par, $10 stated value, 150,000 shares issued, and 142,000 outstanding	1,500,000
Share premium—preference	288,400
Share premium—ordinary	690,000
Share premium—treasury	6,000
Retained earnings	776,000
Less: Treasury shares (8,000 shares)	88,000
Total equity	$3,572,400

*(b) The book value of the ordinary shares is $22.06 computed as follows:

Total equity	$3,572,400
Less: Preference shares equity Call price ($110 X 4,000)	440,000
Ordinary shares equity	$3,132,400
Ordinary shares outstanding	142,000
Book value per share ($3,132,400 ÷ 142,000)	$22.06

Note: No preference dividends are assigned to the preference shares equity because the preference shares are noncumulative.

*PROBLEM 11-9A

HAMBLIN INC.
Statement of Changes in Equity
For the Year Ending December 31, 2011
(in thousands, except shares)

	Ordinary Shares	Share Premium	Ordinary Share Dividends Distributable	Treasury Shares	Retained Earnings	Total
Balances, Jan. 1	CHF1,000	CHF500	CHF100	CHF 0	CHF 600	CHF 2,200
Issued 50,000 shares for share dividend	100		(100)			0
Issued 30,000 shares for cash	60	90				150
Purchased 25,000 treasury shares				(150)		(150)
Declared cash dividend					(111)	(111)
Sold 8,000 treasury shares				48		48
Net income for year					360	360
Balances, Dec. 31	CHF1,160	CHF590	CHF 0	CHF(102)	CHF849	CHF2,497

PROBLEM 11-1B

(a)	Jan. 10	Cash (80,000 X $4)	320,000	
		Share Capital—Ordinary (80,000 X $3)		240,000
		Share Premium—Ordinary (80,000 X $1)		80,000
	Mar. 1	Cash (5,000 X $105)	525,000	
		Share Capital—Preference (5,000 X $100)		500,000
		Share Premium—Preference (5,000 X $5)		25,000
	Apr. 1	Land	85,000	
		Share Capital—Ordinary (24,000 X $3)		72,000
		Share Premium—Ordinary ($85,000 – $72,000)		13,000
	May 1	Cash (80,000 X $4.50)	360,000	
		Share Capital—Ordinary (80,000 X $3)		240,000
		Share Premium—Ordinary (80,000 X $1.50)		120,000
	Aug. 1	Organization Expense	40,000	
		Share Capital—Ordinary (10,000 X $3)		30,000
		Share Premium—Ordinary ($40,000 – $30,000)		10,000
	Sept. 1	Cash (10,000 X $5)	50,000	
		Share Capital—Ordinary (10,000 X $3)		30,000
		Share Premium—Ordinary (10,000 X $2)		20,000

PROBLEM 11-1B (Continued)

Nov. 1	Cash (1,000 X $109)	109,000	
	Share Capital—Preference (1,000 X $100)		100,000
	Share Premium—Preference (1,000 X $9)		9,000

(b)

Share Capital—Preference

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 1		J5		500,000	500,000
Nov. 1		J5		100,000	600,000

Share Capital—Ordinary

Date	Explanation	Ref.	Debit	Credit	Balance
Jan. 10		J5		240,000	240,000
Apr. 1		J5		72,000	312,000
May 1		J5		240,000	552,000
Aug. 1		J5		30,000	582,000
Sept. 1		J5		30,000	612,000

Share Premium—Preference

Date	Explanation	Ref.	Debit	Credit	Balance
Mar. 1		J5		25,000	25,000
Nov. 1		J5		9,000	34,000

Share Premium—Ordinary

Date	Explanation	Ref.	Debit	Credit	Balance
Jan. 10		J5		80,000	80,000
Apr. 1		J5		13,000	93,000
May 1		J5		120,000	213,000
Aug. 1		J5		10,000	223,000
Sept. 1		J5		20,000	243,000

PROBLEM 11-1B (Continued)

(c) **KEELER CORPORATION**

Equity	
Share capital—preference, 8%, $100 par value, 10,000 shares authorized, 6,000 shares issued	**$ 600,000**
Share capital—ordinary, no par, $3 stated value, 500,000 shares authorized, 204,000 shares issued	**612,000**
Share premium—preference	**34,000**
Share premium—ordinary	**243,000**
Total share capital	**$1,489,000**

PROBLEM 11-2B

(a)	Mar.	1	Treasury Shares (5,000 X £8)	40,000	
			Cash		40,000
	June	1	Cash (1,000 X £12)	12,000	
			Treasury Shares (1,000 X £8)		8,000
			Share Premium—Treasury (1,000 X £4)		4,000
	Sept.	1	Cash (2,000 X £10)	20,000	
			Treasury Shares (2,000 X £8)		16,000
			Share Premium—Treasury (2,000 X £2)		4,000
	Dec.	1	Cash (1,000 X £6)	6,000	
			Share Premium—Treasury (1,000 X £2)	2,000	
			Treasury Shares (1,000 X £8)		8,000
		31	Income Summary	40,000	
			Retained Earnings		40,000

(b)

Share Premium—Treasury

Date		Explanation	Ref.	Debit	Credit	Balance
June	1		J10		4,000	4,000
Sept.	1		J10		4,000	8,000
Dec.	1		J10	2,000		6,000

Treasury Shares

Date		Explanation	Ref.	Debit	Credit	Balance
Mar.	1		J10	40,000		40,000
June	1		J10		8,000	32,000
Sept.	1		J10		16,000	16,000
Dec.	1		J10		8,000	8,000

PROBLEM 11-2B (Continued)

Retained Earnings

Date	Explanation	Ref.	Debit	Credit	Balance
Jan. 1	Balance	✓			100,000
Dec. 31		J10		40,000	140,000

(c) **GOLDBERG CORPORATION**

Equity	
Share capital—ordinary, £5 par, 100,000 shares issued and 99,000 outstanding	£500,000
Share premium—ordinary	200,000
Share premium—treasury	6,000
Retained earnings	140,000
Less: Treasury shares (1,000 shares)	8,000
Total equity	£838,000

PROBLEM 11-3B

(a)

Feb. 1	Cash	100,000	
	Share Capital—Ordinary (25,000 X $1)		25,000
	Share Premium—Ordinary ($100,000 – $25,000)		75,000
Apr. 14	Cash	33,000	
	Treasury Shares (6,000 X $4)		24,000
	Share Premium—Treasury ($33,000 – $24,000)		9,000
Sept. 3	Patent	30,000	
	Share Capital—Ordinary (5,000 X $1)		5,000
	Share Premium—Ordinary ($30,000 – $5,000)		25,000
Nov. 10	Treasury Shares	6,000	
	Cash		6,000
Dec. 31	Income Summary	452,000	
	Retained Earnings		452,000

(b)

Share Capital—Preference

Date		Explanation	Ref.	Debit	Credit	Balance
Jan.	1	Balance	✓			400,000

Share Capital—Ordinary

Date		Explanation	Ref.	Debit	Credit	Balance
Jan.	1	Balance	✓			1,000,000
Feb.	1		J5		25,000	1,025,000
Sept.	3		J5		5,000	1,030,000

PROBLEM 11-3B (Continued)

Share Premium—Preference

Date		Explanation	Ref.	Debit	Credit	Balance
Jan.	1	Balance	✓			100,000

Share Premium—Ordinary

Date		Explanation	Ref.	Debit	Credit	Balance
Jan.	1	Balance	✓			1,450,000
Feb.	1		J5		75,000	1,525,000
Sept.	3		J5		25,000	1,550,000

Retained Earnings

Date		Explanation	Ref.	Debit	Credit	Balance
Jan.	1	Balance	✓			1,816,000
Dec.	31		J5		452,000	2,268,000

Treasury Shares

Date		Explanation	Ref.	Debit	Credit	Balance
Jan.	1	Balance	✓			40,000
Apr.	14		J5		24,000	16,000
Nov.	10		J5	6,000		22,000

Share Premium—Treasury

Date		Explanation	Ref.	Debit	Credit	Balance
Apr.	14		J5		9,000	9,000

PROBLEM 11-3B (Continued)

(c) **PORT CORPORATION**

Equity	
Share capital—preference, 8%, $50 par value, cumulative, 10,000 shares authorized, 8,000 shares issued and outstanding	$ 400,000
Share capital—ordinary, no par, $1 stated value, 2,000,000 shares authorized, 1,030,000 shares issued and 1,025,000 shares outstanding	1,030,000
Share premium—preference	100,000
Share premium—ordinary	1,550,000
Share premium—treasury	9,000
Retained earnings (see Note X)	2,268,000
Less: Treasury shares (5,000 shares)	22,000
Total equity	$5,335,000

Note X: Dividends on preference shares totaling $32,000 [8,000 X (8% X $50)] are in arrears.

PROBLEM 11-4B

(a)	Feb.	1	Cash Dividends (75,000 X €1)	75,000	
			Dividends Payable		75,000
	Mar.	1	Dividends Payable	75,000	
			Cash		75,000
	Apr.	1	Memo—two-for-one share split increases number of shares to 150,000 = (75,000 X 2) and reduces par value to €10 per share.		
	July	1	Share Dividends (15,000 X €13)	195,000	
			Ordinary Share Dividends Distributable (15,000 X €10)		150,000
			Share Premium—Ordinary (15,000 X €3)		45,000
		31	Ordinary Share Dividends Distributable	150,000	
			Share Capital—Ordinary		150,000
	Dec.	1	Cash Dividends (165,000 X €.50)	82,500	
			Dividends Payable		82,500
		31	Income Summary	350,000	
			Retained Earnings		350,000
		31	Retained Earnings	157,500	
			Cash Dividends		157,500
		31	Retained Earnings	195,000	
			Share Dividends		195,000

PROBLEM 11-4B (Continued)

(b)

Share Capital—Ordinary

Date		Explanation	Ref.	Debit	Credit	Balance
Jan.	1	Balance	✓			1,500,000
Apr.	1	2 for 1 split—new par $10				1,500,000
July	31				150,000	1,650,000

Share Premium—Ordinary

Date		Explanation	Ref.	Debit	Credit	Balance
Jan.	1	Balance	✓			200,000
July	1				45,000	245,000

Retained Earnings

Date		Explanation	Ref.	Debit	Credit	Balance
Jan.	1	Balance	✓			600,000
Dec.	31	Cash dividends		157,500		442,500
July	31	Share dividends		195,000		247,500
	31	Net income			350,000	597,500

Cash Dividends

Date		Explanation	Ref.	Debit	Credit	Balance
Feb.	1			75,000		75,000
Dec.	1			82,500		157,500
	31				157,500	0

Share Dividends

Date		Explanation	Ref.	Debit	Credit	Balance
July	1			195,000		195,000
Dec.	31				195,000	0

Ordinary Shares Dividends Distributable

Date		Explanation	Ref.	Debit	Credit	Balance
July	1				150,000	150,000
	31			150,000		0

PROBLEM 11-4B (Continued)

(c)

BELGIUM CORPORATION
Statement of Financial Position (Partial)
December 31, 2011

Equity	
Share capital—ordinary, €10 par value, 165,000 shares issued and outstanding	€1,650,000
Share premium—ordinary	245,000
Retained earnings	597,500
Total equity	€2,492,500

PROBLEM 11-5B

(a)

BRADSTROM COMPANY
Retained Earnings Statement
For the Year Ended December 31, 2011

Balance, January 1, as reported		$ 900,000
Correction for understatement of net income in 2010 (depreciation error)		80,000
Balance, January 1, as adjusted		980,000
Add: Net income		3,600,000
		4,580,000
Less: Cash dividends—ordinary	$1,485,000*	
Cash dividends—preference	700,000	2,185,000
Balance, December 31		$2,395,000

*(1,500,000 – 15,000) X $1

PROBLEM 11-5B (Continued)

(b)

BRADSTROM COMPANY
Partial Statement of Financial Position
December 31, 2011

Equity	
Share capital—preference, $100 par value, 7%, cumulative, 100,000 shares issued and outstanding	$10,000,000
Share capital—ordinary, $10 par value, 1,500,000 shares issued and 1,485,000 shares outstanding	15,000,000
Share premium—preference	500,000
Share premium—ordinary	1,500,000
Retained earnings	2,395,000
Less: Treasury shares (15,000 shares)	240,000
Total equity	$29,155,000

PROBLEM 11-6B

(a)

Retained Earnings

Sept. 1	Prior Per. Adj.	63,000	Jan. 1	Balance	1,170,000
Dec. 31	Cash Dividends	250,000	Dec. 31	Net Income	495,000
Dec. 31	Share Dividends	*450,000			
			Dec. 31	Balance	902,000

*(250,000 X .10) X R$18

(b)

FORTALEZA CORPORATION
Retained Earnings Statement
For the Year Ended December 31, 2011

Balance, January 1, as reported		R$1,170,000
Correction of overstatement of 2010 net income because of understatement of depreciation		(63,000)
Balance, January 1, as adjusted		1,107,000
Add: Net income		495,000
		1,602,000
Less: Cash dividends	R$250,000	
Share dividends	450,000	700,000
Balance, December 31		R$ 902,000

(c)

FORTALEZA CORPORATION
Partial Statement of Financial Position
December 31, 2011

Equity	
Share capital—preference	
8%, R$50 par value, cumulative, 20,000 shares authorized, 15,000 shares issued and outstanding	R$ 750,000

FORTALEZA CORPORATION (Continued)

Share Capital—Ordinary, R$10 par value, 500,000 shares authorized, 250,000 shares issued and outstanding	R$2,500,000
Ordinary shares dividends distributable	250,000
Share premium—preference	250,000
Share premium—ordinary	400,000
Retained earnings (see Note X)	902,000
Total equity	R$5,052,000

Note X: Retained earnings is restricted for plant expansion, R$200,000.

(d) $\frac{\text{R\$495,000} - \text{R\$60,000*}}{240,000}$ = R$1.81

*15,000 X R$4 = R$60,000

(e)

Total cash dividend		R$250,000
Allocated to preference shares		
Dividend in arrears—2010 (15,000 X R$4)	R$60,000	
2011 dividend	60,000	120,000
Remainder to ordinary shares		R$130,000

PROBLEM 11-7B

(a) **RIZZO CORPORATION**

Equity	
Share capital—preference	
8%, $50 par noncumulative,	
16,000 shares issued	$ 800,000
Share capital—ordinary, no par,	
$5 stated value, 500,000	
shares issued and 490,000	
outstanding	2,500,000
Share premium—preference	679,000
Share premium—ordinary	1,600,000
Share premium—treasury	10,000
Retained earnings	1,448,000
Less: Treasury shares	
(10,000 shares)	130,000
Total equity	$6,907,000

*(b) The book value of the ordinary shares is $12.14 computed as follows:

Total equity	$6,907,000
Less: Preference shares equity	
Call price (16,000 X $60)	960,000
Ordinary shares equity	$5,947,000
Ordinary shares outstanding	490,000
Book value per share ($5,947,000 ÷ 490,000)	$12.14

Note: No preference dividends are assigned to the preference shares equity because the preference shares are noncumulative.

COMPREHENSIVE PROBLEM SOLUTION

(a) 1.	Cash	33,000	
	Share Capital—Preference		30,000
	Share Premium—Preference		3,000
2.	Cash	21,000	
	Share Capital—Ordinary		9,000
	Share Premium—Ordinary		12,000
3.	Accounts Receivable	280,000	
	Service Revenue		280,000
4.	Cash	36,000	
	Unearned Service Revenue		36,000
5.	Cash	267,000	
	Accounts Receivable		267,000
6.	Supplies	35,100	
	Account Payable		35,100
7.	Accounts Payable	32,200	
	Cash		32,200
8.	Treasury Shares	15,200	
	Cash		15,200
9.	Other Operating Expenses	188,200	
	Cash		188,200
10.	Cash Dividends (£2,100 + £10,200*)	12,300	
	Dividends Payable		12,300
11.	Allowance for Doubtful Accounts	1,300	
	Accounts Receivable		1,300

*[(£80,000 ÷ £10) + 900 – 400] X £1.20

Adjusting Entries

		Debit	Credit
1.	Supplies Expense (£4,400 + £35,100 – £5,900)	33,600	
	Supplies		33,600
2.	Unearned Service Revenue	27,000	
	Service Revenue (£36,000 X 9/12)		27,000
3.	Bad Debts Expense [£3,500 – (£1,500 – £1,300)]	3,300	
	Allowance for Doubtful Accounts		3,300
4.	Depreciation Expense—Building	4,400	
	Accumulated Depreciation—Building (£142,000 – £10,000) ÷ 30		4,400
5.	Income Tax Expense	23,250	
	Income Tax Payable		23,250

(b)

HIATT CORPORATION
Adjusted Trial Balance
12/31/11

Account	Debit	Credit
Cash	£146,000	
Accounts Receivable	57,200	
Allowance for Doubtful Accounts		£ 3,500
Supplies	5,900	
Land	40,000	
Building	142,000	
Accum. Depreciation—Building		26,400
Accounts Payable		28,500
Income Taxes Payable		23,250
Unearned Service Revenue		9,000
Dividends Payable		12,300
Share Capital—Preference		30,000
Share Premium—Preference		3,000
Share Capital—Ordinary		89,000
Share Premium—Ordinary		12,000
Retained Earnings		127,400
Cash Dividends	12,300	
Treasury Shares	15,200	
Service Revenue		307,000
Bad Debts Expense	3,300	
Depreciation Expense	4,400	
Supplies Expense	33,600	
Other Operating Expenses	188,200	
Income Tax Expense	23,250	
Total	£671,350	£671,350

COMPREHENSIVE PROBLEM SOLUTION (Continued)

(c) Optional T Accounts

Cash

Bal.	24,600		32,200
	33,000		15,200
	21,000		188,200
	36,000		
	267,000		
Bal.	146,000		

Accounts Receivable

Bal.	45,500		267,000
	280,000		1,300
Bal.	57,200		

Allowance for Doubtful Accounts

	1,300	Bal.	1,500
			3,300
		Bal.	3,500

Supplies

Bal.	4,400		33,600
	35,100		
Bal.	5,900		

Land

Bal.	40,000		

Building

Bal.	142,000		

Accum. Depreciation—Building

		Bal.	22,000
			4,400
		Bal.	26,400

Accounts Payable

	32,200	Bal.	25,600
			35,100
		Bal.	28,500

Income Taxes Payable

			23,250

Unearned Service Revenue

	27,000		36,000
		Bal.	9,000

Dividends Payable

			12,300

Share Capital—Preference

			30,000

Share Premium—Preference

			3,000

COMPREHENSIVE PROBLEM SOLUTION (Continued)

(c) (Continued)

Share Capital—Ordinary

	Bal.	80,000
		9,000
	Bal.	89,000

Share Premium—Ordinary

	12,000

Retained Earnings

	127,400

Cash Dividends

12,300	

Treasury Shares

15,200	

Service Revenue

		280,000
		27,000
	Bal.	307,000

Bad Debts Expense

3,300	

Depreciation Expense

4,400	

Supplies Expense

33,600	

Other Operating Expenses

188,200	

Income Tax Expense

23,250	

COMPREHENSIVE PROBLEM SOLUTION (Continued)

(d)

HIATT CORPORATION
Income Statement
For the Year ending 12/31/11

Service revenue		£307,000
Operating expenses		
Supplies expense	£ 33,600	
Depreciation expense	4,400	
Bad debts expense	3,300	
Other operating expenses	188,200	
Total operating expenses		229,500
Income before taxes		77,500
Income tax expense		23,250
Net income		£ 54,250

HIATT CORPORATION
Retained Earnings Statement
For the Year ending 12/31/11

Retained earnings, 1/1/11	£127,400
Add: Net income	54,250
	181,650
Less: Dividends	12,300
Retained earnings, 12/31/11	£169,350

HIATT CORPORATION
Statement of Financial Position
At 12/31/2011

Assets			
Property, plant, and equipment			
Land		£40,000	
Building	£142,000		
Accumulated depreciation	(26,400)	115,600	£155,600
Current assets			
Supplies		5,900	
Accounts receivable	57,200		
Allowance for doubtful accounts	(3,500)	53,700	
Cash		146,000	205,600
Total assets			£361,200
Equity and Liabilities			
Equity			
Share capital—preference		£30,000	
Share capital—ordinary		89,000	
Share premium—preference		3,000	
Share premium—ordinary		12,000	
Retained earnings		169,350	
Less: Treasury shares (400 shares)		15,200	£288,150
Current liabilities			
Accounts payable		£28,500	
Income taxes payable		23,250	
Dividends payable		12,300	
Unearned service revenue		9,000	73,050
Total equity and liabilities			£361,200

BYP 11-1 FINANCIAL REPORTING PROBLEM

(a) The ordinary shares of Cadbury has a par value of 10p per share.

(b) There are 2,500 million shares authorized of which 1,361 million are issued. The percentage is 54.4% (1,361 ÷ 2,500).

(c) Cadbury does not report any treasury shares so the ordinary shares outstanding equal the 1,361 million shares issued.

BYP 11-2 COMPARATIVE ANALYSIS PROBLEM

*(a)

	Cadbury	Nestlé
Basic earnings per share	22.6p	CHF4.87

(b)

	Cadbury	Nestlé
Return on ordinary shareholders' equity	$\dfrac{£366}{(£4,162 + £3,522) \div 2} = 9.5\%$	$\dfrac{CHF19,051}{(CHF54,776 + CHF54,916) \div 2} = 34.7\%$

The return on common shareholders' equity can be used to compare the profitability of two companies. It shows how many dollars of net income were earned for each dollar invested by the owners. Since this ratio is expressed as a percent instead of a dollar amount like earnings per share, it can be used to compare Cadbury and Nestlé. During 2008, Nestlé was significantly (265%) more profitable than Cadbury based on their respective returns on common stockholders' equity. Earnings per share measures cannot be compared across companies because they may use vastly different numbers of shares to finance the company.

(c) Cadbury paid cash dividends of £295 million and Nestlé paid CHF4,573 million of cash dividends in 2008.

BYP 11-3 EXPLORING THE WEB

Answers will vary depending on company chosen by student.

BYP 11-4 DECISION MAKING ACROSS THE ORGANIZATION

(a) The cumulative provision means that preference shareholders must be paid both current-year dividends and unpaid prior-year dividends before ordinary shareholders receive any dividends. When preference share are cumulative, preference dividends not declared in a given period are called dividends in arrears.

(b) The market price of a share is caused by many factors. Among the factors to be considered are: (1) the corporation's anticipated future earnings, (2) its expected dividend rate per share, (3) its current financial position, (4) the current state of the economy, and (5) the current state of the securities markets.

Par value is the amount assigned to each share in the corporate charter. Par value may be any amount selected by the corporation. Generally, the amount of par value is quite low because states often levy a tax on the corporation based on par value.

Par value is not indicative of the worth or market value of the shares. The significance of par value is a legal matter. Par value represents the legal capital per share that must be retained in the business for the protection of corporate creditors.

(c) A corporation may acquire treasury shares to:

1. Reissue the shares to officers and employees under bonus or share compensation plans.
2. Increase trading of the company's shares in the securities market in hope of enhancing its market value.
3. Have additional shares available for use in the acquisition of other companies.
4. Reduce the number of shares outstanding and thereby increase earnings per share.
5. To rid the company of disgruntled investors.

BYP 11-4 (Continued)

Treasury shares are not an asset. If treasury shares were reported as an asset, then unissued shares should also be shown as an asset, also an erroneous conclusion. Rather than being an asset, treasury shares reduce shareholder claims on corporate assets. This effect is correctly shown by reporting treasury shares as a deduction from total share capital and retained earnings.

(d) It is important to distinguish between legal capital and total share capital. Par value represents the legal capital per share that must be retained in the business for the protection of corporate creditors. Share capital is not legal capital, and therefore a distinction between par value and share capital must be maintained.

BYP 11-5 COMMUNICATION ACTIVITY

Dear Uncle Sol:

Thanks for your recent letter and for asking me to explain four terms.

Here are my explanations:

1. **Authorized shares are the total amount of shares that a corporation is given permission to sell as indicated in its charter. If all authorized shares are sold, a corporation must obtain consent of the state to amend its charter before it can issue additional shares.**

2. **Issued shares are the amount of shares that have been sold either directly to investors or indirectly through an investment banking firm.**

3. **Outstanding shares are capital shares that have been issued and are being held by shareholders.**

4. **Preference shares are capital shares that have contractual preferences over ordinary shares in certain areas.**

I really enjoy my accounting classes and especially like the accounting instructors. I hope your corporation does well, and I wish you continued success with your inventions.

Regards,

BYP 11-6 ETHICS CASE

(a) The stakeholders in this situation are:

- **The director of Healy's R&D division.**
- **The president of Healy.**
- **The shareholders of Healy.**
- **Those who live in the environment to be sprayed by the new (untested) chemical.**

(b) The president is risking the environment and everything and everybody in it that is exposed to this new chemical in order to enhance his company's sales and to preserve his job. Presidents and entrepreneurs frequently take risks in performing their leadership functions, but this action appears to be irresponsible and unethical.

(c) A parent company may protect itself against loss and most reasonable business risks by establishing separate subsidiary corporations but whether it can insulate itself against this type of action is a matter of state corporate law and criminal law.

CHAPTER 12

Investments

ASSIGNMENT CLASSIFICATION TABLE

Study Objectives	Questions	Brief Exercises	Do It!	Exercises	A Problems	B Problems
1. Discuss why corporations invest in debt and share securities.	1			1		
2. Explain the accounting for debt investments.	2, 3, 4	1	1	2, 3	1A, 2A	1B, 2B
3. Explain the accounting for share investments.	5, 6, 7, 8, 9, 10	2, 3	2	4, 5, 6, 7, 8	2A, 3A, 4A, 5A	2B, 3B, 4B, 5B
4. Describe the use of consolidated financial statements.	11			9		
5. Indicate how debt and share investments are reported in financial statements.	12, 13, 14, 15, 16, 17, 18	4, 5, 6, 7, 8	3	8, 10, 11, 12	1A, 2A, 3A, 5A, 6A	1B, 2B, 3B, 5B, 6B
6. Distinguish between short-term and long-term investments.	19	5, 7, 8	4	10, 11, 12	1A, 2A, 3A, 5A, 6A	1B, 2B, 3B, 5B, 6B
*7. Describe the content of a worksheet for a consolidated statement of financial position.		9, 10		13, 14	7A	7B
*8. Explain the form and content of consolidated financial statements.	20, 21			13, 14	7A	7B

Note: All **asterisked** Question, Exercises, and Problems relate to material contained in the appendix to the chapter.

ASSIGNMENT CHARACTERISTICS TABLE

Problem Number	Description	Difficulty Level	Time Allotted (min.)
1A	Journalize debt investment transactions and show financial statement presentation.	Moderate	30–40
2A	Journalize investment transactions, prepare adjusting entry, and show statement presentation.	Moderate	30–40
3A	Journalize transactions and adjusting entry for share investments.	Moderate	30–40
4A	Prepare entries under the cost and equity methods, and tabulate differences.	Simple	20–30
5A	Journalize share investment transactions and show statement presentation.	Moderate	40–50
6A	Prepare a statement of financial position.	Moderate	30–40
*7A	Prepare consolidated worksheet and statement of financial position when cost exceeds book value.	Simple	30–40
1B	Journalize debt investment transactions and show financial statement presentation.	Moderate	30–40
2B	Journalize investment transactions, prepare adjusting entry, and show statement presentation.	Moderate	30–40
3B	Journalize transactions and adjusting entry for share investments.	Moderate	30–40
4B	Prepare entries under the cost and equity methods, and tabulate differences.	Simple	20–30
5B	Journalize share investment transactions and show statement presentation.	Moderate	40–50
6B	Prepare a statement of financial position.	Moderate	30–40
*7B	Prepare consolidated worksheet and statement of financial position when cost exceeds book value.	Simple	30–40

WEYGANDT IFRS 1E
CHAPTER 12
INVESTMENTS

Number	SO	BT	Difficulty	Time (min.)
BE1	2	AP	Simple	2–4
BE2	3	AP	Simple	3–5
BE3	3	AP	Simple	3–5
BE4	5	AP	Simple	2–3
BE5	5, 6	AN	Simple	2–4
BE6	5	AN	Simple	2–3
BE7	5, 6	AP	Simple	2–4
BE8	5, 6	AP	Simple	3–5
*BE9	7	AP	Simple	3–5
*BE10	7	AP	Simple	3–5
DI1	2	AP	Moderate	6–8
DI2	3	AP	Simple	6–8
DI3	5	AN	Simple	4–6
DI4	6	C	Simple	4–6
EX1	1	C	Simple	8–10
EX2	2	AP	Moderate	8–10
EX3	2	AP	Moderate	8–10
EX4	3	AP	Simple	8–10
EX5	3	AP	Simple	6–8
EX6	3	AP	Simple	8–10
EX7	3	AP	Simple	6–8
EX8	3, 5	AP	Simple	8–10
EX9	4	C	Simple	6–8
EX10	5, 6	AN	Simple	4–6
EX11	5, 6	AN	Simple	8–10
EX12	5, 6	AN	Simple	6–8
EX13	7, 8	AP	Moderate	10–20
EX14	7, 8	AP	Moderate	10–20

INVESTMENTS (Continued)

Number	SO	BT	Difficulty	Time (min.)
P1A	2, 5, 6	AN	Moderate	30–40
P2A	2, 3, 5, 6	AN	Moderate	30–40
P3A	3, 5, 6	AN	Moderate	30–40
P4A	3	AN	Simple	20–30
P5A	3, 5, 6	AN	Moderate	40–50
P6A	5, 6	AP	Moderate	30–40
*P7A	7, 8	AP	Moderate	20–30
P1B	2, 5, 6	AN	Moderate	30–40
P2B	2, 3, 5, 6	AN	Moderate	30–40
P3B	3, 5, 6	AN	Moderate	30–40
P4B	3	AN	Simple	20–30
P5B	3, 5, 6	AN	Moderate	40–50
P6B	5, 6	AP	Moderate	30–40
*P7B	7, 8	AP	Moderate	20–30
BYP1	4	C	Simple	10–15
BYP2	4	AN	Simple	10–15
BYP3	—	C	Simple	10–15
BYP4	3	C	Moderate	15–20
BYP5	5	C	Simple	5–10
BYP6	5	E	Simple	10–15

BLOOM'S TAXONOMY TABLE

Correlation Chart between Bloom's Taxonomy, Study Objectives and End-of-Chapter Exercises and Problems

Study Objective	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
1. Discuss why corporations invest in debt and share securities.	Q12-1	E12-1				
2. Explain the accounting for debt investments.	Q12-2	Q12-3 Q12-4	BE12-1 E12-2 DI12-1 E12-3	P12-1A P12-1B P12-2A P12-2B		
3. Explain the accounting for share investments.	Q12-7	Q12-5 Q12-8 Q12-9 Q12-10	Q12-6 E12-5 BE12-2 E12-6 BE12-3 E12-7 DI12-2 E12-8 E12-4	P12-2A P12-2B P12-3A P12-3B P12-4A P12-4B P12-5A P12-5B		
4. Describe the use of consolidated financial statements.	Q12-11	E12-9				
5. Indicate how debt and share investments are reported in financial statements.	Q12-12 Q12-17	Q12-13 Q12-18	Q12-14 Q12-16 BE12-4 BE12-7 BE12-8 E12-8 P12-6A P12-6B	Q12-15 P12-2A BE12-5 P12-3A BE12-6 P12-5A DI12-3 P12-1B E12-10 P12-2B E12-11 P12-3B E12-12 P12-5B P12-1A		
6. Distinguish between short-term and long-term investments.		Q12-19 DI12-4	BE12-7 BE12-8 P12-6A P12-6B	BE12-5 P12-3A E12-10 P12-5A E12-11 P12-1B E12-12 P12-2B P12-1A P12-3B P12-2A P12-5B		
*7. Describe the content of a worksheet for a consolidated statement of financial position.			BE12-9 E12-14 BE12-10 P12-7A E12-13 P12-7B			
*8. Explain the form and content of consolidated financial statements.		Q12-20 Q12-21	E12-13 P12-7A E12-14 P12-7B			
Broadening Your Perspective		Financial Reporting Exploring the Web Decision Making Across the Organization Communication		Comparative Analysis		Ethics Case

ANSWERS TO QUESTIONS

1. The reasons corporations invest in securities are: (1) excess cash not needed for operations that can be invested, (2) for additional earnings, and (3) strategic reasons.

2. (a) The cost of an investment in bonds consists of all expenditures necessary to acquire the bonds, such as the market price of the bonds plus any brokerage fees.
   (b) Interest is recorded as it is earned; that is, over the life of the investment in bonds.

3. (a) Losses and gains on the sale of debt investments are computed by comparing the amortized cost of the securities to the net proceeds from the sale.
   (b) Gains and losses are reported in the income statement under other income and expense.

4. Kolkata Company is incorrect. The gain is the difference between the net proceeds, exclusive of interest, and the cost of the bonds. The correct gain is Rs45,000, or [(Rs450,000 – Rs5,000) – Rs400,000].

5. The cost of an investment in shares includes all expenditures necessary to acquire the investment. These expenditures include the actual purchase price plus any commissions or brokerage fees.

6. Brokerage fees are part of the cost of the investment. Therefore, the entry is:

Share Investments	63,200	
Cash		63,200

7. (a) Whenever the investor's influence on the operating and financial affairs of the associate is significant, the equity method should be used. The major factor in determining significant influence is the percentage of ownership interest held by the investor in the associate. The general guideline for use of the equity method is 20%–50% ownership interest. Companies are required to use judgment, however, rather than blindly follow the 20%–50% guideline.
   (b) Revenue is recognized as it is earned by the associate.

8. Since Rijo Corporation uses the equity method, the income reported by Pippen Packing (€80,000) should be multiplied by Rijo's ownership interest (30%) and the result (€24,000) should be debited to Share Investments and credited to Revenue from Investment in Pippen Packing. Also, of the total dividend declared and paid by Pippen (€10,000) Rijo will receive 30% or €3,000. This amount should be debited to Cash and credited to Share Investments.

9. Significant influence over an associate may result from representation on the board of directors, participation in policy-making processes, material intercompany transactions. One must also consider whether the shares held by other shareholders is concentrated or dispersed. An investment (direct or indirect) of 20%–50% of the voting shares of an associate constitutes significant influence unless there exists evidence to the contrary.

10. Under the cost method, an investment is originally recorded and reported at cost. Dividends are recorded as revenue. In subsequent periods, it is adjusted to fair value and an unrealized holding gain or loss is recognized and included in income (fair value through profit and loss) or as a separate component of shareholders' equity (available-for-sale security). Under the equity method, the investment is originally recorded and reported at cost; subsequently, the investment account is adjusted during each period for the investor's share of the earnings or losses of the associate. The investor's share of the associate's earnings is recognized in the earnings of the investor. Dividends received from the associate are reductions in the carrying amount of the investment.

11. Consolidated financial statements present the details of the assets and liabilities controlled by the parent company and the total revenues and expenses of the affiliated companies.

Consolidated financial statements are especially useful to the shareholders, board of directors, and management of the parent company.

12. The valuation guidelines for investments is as follows:

Category	Valuation and Reporting
FVPL	At fair value with changes reported in net income
Available-for-sale	At fair value with changes reported in shareholders' equity
Held-to-maturity	At amortized cost

Investments recorded under the equity method are reported at their carrying value. The carrying value is the cost adjusted for the investor's share of the associate's income and dividends received.

13. Tina should report as follows:

(1) Under current assets in the statement of financial position:	
Short-term investment, at fair value	$70,000
(2) Under other income and expense in the income statement:	
Unrealized loss—income	$ 4,000

14. Tina should report as follows:

(1) Under investments in the statement of financial position:	
Investment in shares of less than 20% owned companies, at fair value	$70,000
(2) Under shareholders' equity in the statement of financial position:	
Less: Unrealized loss on available-for-sale securities	$ (4,000)

15. The entry is:

Market Adjustment—AFS	10,000	
Unrealized Gain or Loss—Equity		10,000

16. The entry is:

Market Adjustment—FVPL	10,000	
Unrealized Gain—Income		10,000

17. Unrealized Loss—Equity is reported as a deduction from shareholders' equity. The unrealized loss is not included in the computation of net income.

18. Reporting Unrealized Gains (Losses)—Equity in the shareholders' equity section serves two important purposes: (1) it reduces the volatility of net income due to fluctuations in fair value, and (2) it still informs the financial statement user of the gain or loss that would occur if the securities were sold at fair value.

19. No. The investment in Key Corporation shares is a long-term investment because there is no intent to convert the shares into cash within a year or the operating cycle, whichever is longer.

***20.** (a) The parent company's investment in the subsidiary's ordinary shares and the subsidiary's shareholders' equity account balances are eliminated.

(b) The investment account represents an interest in the assets of the subsidiary. The statement of financial position of the subsidiary lists all its assets and liabilities (the net assets). Therefore, there would be a double counting of net assets. Similarly, there would be a double counting in shareholders' equity because all the ordinary shares of the subsidiary are owned by the shareholders' of parent.

***21.** The remaining excess of HK$8,000,000 [HK$318,000,000 – (HK$290,000,000 + HK$20,000,000)] should be allocated to goodwill and presented in the consolidated statement of financial position as intangible assets—Goodwill.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 12-1

Jan. 1	Debt Investments	52,000	
	Cash		52,000
July 1	Cash	2,340	
	Interest Revenue		2,340

BRIEF EXERCISE 12-2

Aug. 1	Share Investments	35,700	
	Cash		35,700
Dec. 1	Cash	40,000	
	Share Investments		35,700
	Gain on Sale of Share Investments		4,300

BRIEF EXERCISE 12-3

Dec. 31	Share Investments	45,000	
	Revenue from Investment in Fort Company (25% X $180,000)		45,000
31	Cash (25% X $50,000)	12,500	
	Share Investments		12,500

BRIEF EXERCISE 12-4

Dec. 31	Unrealized Loss—Income	3,000	
	Market Adjustment—FVPL ($62,000 – $59,000)		3,000

BRIEF EXERCISE 12-5

Statement of Financial Position

Current assets	
Short-term investments, at fair value	$59,000

Income Statement

Other income and expense	
Unrealized loss—income	3,000

BRIEF EXERCISE 12-6

Dec. 31	Unrealized Gain or Loss—Equity	6,000	
	Market Adjustment—AFS		6,000

BRIEF EXERCISE 12-7

Statement of Financial Position

Investments	
Investment in shares of less than 20% owned companies, at fair value	R66,000
Equity	
Less: Unrealized loss on available-for-sale securities	R (6,000)

BRIEF EXERCISE 12-8

Investments	
Investment in shares of less than 20% owned companies, at fair value	$115,000
Investment in shares of 20–50% owned companies, at equity	270,000
Total investments	$385,000

*BRIEF EXERCISE 12-9

	Paula Company	Shannon Company	Eliminations Dr.	Eliminations Cr.	Consolidated Data
Investment in Shannon	190,000			190,000	0
Share Capital— Ordinary		120,000	120,000		0
Retained Earnings		70,000	70,000		0

*BRIEF EXERCISE 12-10

	Paula Company	Shannon Company	Eliminations Dr.	Eliminations Cr.	Consolidated Data
Investment in Shannon	200,000			200,000	0
Excess of Cost Over Book Value			10,000		10,000
Share Capital— Ordinary		120,000	120,000		0
Retained Earnings		70,000	70,000		0

SOLUTIONS FOR DO IT! REVIEW EXERCISES

DO IT! 12-1

(a)	Jan. 1	Debt Investments	51,500	
		Cash		51,500
	July 1	Cash	3,000	
		Interest Revenue (£50,000 X 12% X 6/12)		3,000
	July 1	Cash	29,200	
		Loss on Sale of Debt Investments	1,700	
		Debt Investments (£51,500 X 30/50)		30,900
(b)	Dec. 31	Interest Receivable	1,200	
		Interest Revenue (£20,000 X 12% X 6/12)		1,200

DO IT! 12-2

(1)	June 17	Share Investments	550,000	
		Cash		550,000
	Sept. 3	Cash	16,000	
		Dividend Revenue		16,000
(2)	Jan. 1	Share Investments	540,000	
		Cash		540,000
	May 15	Cash	45,000	
		Share Investments		45,000
	Dec. 31	Share Investments	81,000	
		Revenue from Investment in Bandit		81,000

DO IT! 12-3

Fair value through profit or loss securities:

Unrealized Loss—Income	13,600*	
Market Adjustment—FVPL		13,600

*¥11,400 + ¥2,200

Available-for-sale securities:

Market Adjustment—AFS	11,950**	
Unrealized Gain or Loss—Equity		11,950

**¥7,750 + ¥4,200

DO IT! 12-4

Item	Financial statement	Category
1. Loss on sale of investments in shares.	Income statement	Other income and expense
2. Unrealized gain on available-for-sale securities.	Statement of financial position	Equity
3. Market adjustment—FVPL	Statement of financial position	Current assets
4. Interest earned on investments in bonds.	Income statement	Other income and expense
5. Unrealized loss on fair value through profit or loss securities.	Income statement	Other income and expense

SOLUTIONS TO EXERCISES

EXERCISE 12-1

1. Companies purchase investments in debt or share securities because they have excess cash, to generate earnings from investment income, or for strategic reasons.

2. A company would have excess cash that it does not need for operations due to seasonal fluctuations in sales and as a result of economic cycles.

3. The typical investment when investing cash for short periods of time is low-risk, high liquidity, short-term securities such as government-issued securities.

4. The typical investments when investing cash to generate earnings are debt securities and share securities.

5. A company would invest in securities that provide no current cash flows for speculative reasons. They are speculating that the investment will increase in value.

6. The typical investment when investing cash for strategic reasons is shares of companies in a related industry or in an unrelated industry that the company wishes to enter.

EXERCISE 12-2

(a)	Jan.	1	Debt Investments	50,900	
			Cash ($50,000 + $900)		50,900
	July	1	Cash ($50,000 X 8% X 1/2)	2,000	
			Interest Revenue		2,000
		1	Cash ($34,000 – $500)	33,500	
			Debt Investments ($50,900 X 3/5)		30,540
			Gain on Sale of Debt Investments ($33,500 – $30,540)		2,960

EXERCISE 12-2 (Continued)

(b)	Dec. 31	Interest Receivable	800	
		Interest Revenue ($20,000 X 8% X 1/2)		800

EXERCISE 12-3

January 1, 2011		
Debt Investments	73,500	
Cash		73,500
July 1, 2011		
Cash (€70,000 X 12% X 6/12)	4,200	
Interest Revenue		4,200
December 31, 2011		
Interest Receivable	4,200	
Interest Revenue		4,200
January 1, 2012		
Cash	4,200	
Interest Receivable		4,200
January 1, 2012		
Cash	40,100	
Loss On Sale of Debt Investments	1,900	
Debt Investments (40/70 X €73,500)		42,000

EXERCISE 12-4

(a)

Feb.	1	Share Investments	6,200	
		Cash ($6,000 + $200)		6,200
July	1	Cash (600 X $1)	600	
		Dividend Revenue		600
Sept.	1	Cash ($4,400 – $100)	4,300	
		Share Investments ($6,200 X 3/6)		3,100
		Gain on Sale of Share Investments ($4,300 – $3,100)		1,200
Dec.	1	Cash (300 X $1)	300	
		Dividend Revenue		300

(b) Dividend revenue and the gain on sale of share investments are reported under other income and expense in the income statement.

EXERCISE 12-5

Jan.	1	Share Investments	142,100	
		Cash (€140,000 + €2,100)		142,100
July	1	Cash (2,500 X €3)	7,500	
		Dividend Revenue		7,500
Dec.	1	Cash (€32,000 – €800)	31,200	
		Share Investments (€142,100 X 1/5)		28,420
		Gain on Sale of Share Investments		2,780
Dec.	31	Cash (2,000 X €3)	6,000	
		Dividend Revenue		6,000

EXERCISE 12-6

		Debit	Credit
	February 1		
Share Investments		15,400	
Cash [(500 X $30) + $400]			15,400
	March 20		
Cash ($2,900 – $50)		2,850	
Loss on Sale of Share Investments		230	
Share Investments ($15,400 X 100/500)			3,080
	April 25		
Cash (400 X $1.00)		400	
Dividend Revenue			400
	June 15		
Cash ($7,400 – $90)		7,310	
Share Investments ($15,400 X 200/500)			6,160
Gain on Sale of Share Investments			1,150
	July 28		
Cash (200 X $1.25)		250	
Dividend Revenue			250

EXERCISE 12-7

	Date	Account	Debit	Credit
(a)	Jan. 1	Share Investments	180,000	
		Cash		180,000
	Dec. 31	Cash (£60,000 X 25%)	15,000	
		Share Investments		15,000
	31	Share Investments	50,000	
		Revenue from Investment in Connors Ltd. (£200,000 X 25%)		50,000

(b)	Investment in Connors, January 1	£180,000
	Less: Dividend received	(15,000)
	Plus: Share of reported income	50,000
	Investment in Connors, December 31	£215,000

EXERCISE 12-8

1.	2011			
	Mar. 18	Share Investments	390,000	
		Cash (200,000 X 15% X $13)		390,000
	June 30	Cash	9,000	
		Dividend Revenue ($60,000 X 15%)		9,000
	Dec. 31	Market Adjustment—AFS	60,000	
		Unrealized Gain or Loss—Equity ($450,000 – $390,000)		60,000
2.	Jan. 1	Share Investments	81,000	
		Cash (30,000 X 30% X $9)		81,000
	June 15	Cash	9,000	
		Share Investments ($30,000 X 30%)		9,000
	Dec. 31	Share Investments	24,000	
		Revenue from Investment in Parks Corp. ($80,000 X 30%)		24,000

EXERCISE 12-9

(a) Since Ryan owns more than 50% of the ordinary shares of Wayne Enterprises, Ryan is called the parent company. Wayne is the subsidiary (affiliated) company. Because of its share ownership, Ryan has a controlling interest in Wayne.

(b) When a company owns more than 50% of the ordinary shares of another company, consolidated financial statements are usually prepared. Consolidated financial statements present the total assets and liabilities controlled by the parent company. They also present the total revenues and expenses of the affiliated companies.

(c) Consolidated financial statements are useful because they indicate the magnitude and scope of operations of the companies under common control.

EXERCISE 12-10

(a)	Dec. 31	Unrealized Loss—Income	4,000	
		Market Adjustment—FVPL		4,000

(b) **Statement of Financial Position**

Current assets	
Short-term investments, at fair value	CHF49,000

Income Statement

Other income and expense	
Unrealized loss on FVPL securities	CHF 4,000

EXERCISE 12-11

(a)	Dec. 31	Unrealized Gain or Loss—Equity	4,000	
		Market Adjustment—AFS		4,000

(b) **Statement of Financial Position**

Investments	
Investment in shares of less than 20% owned companies, at fair value	CHF49,000
Equity	
Less: Unrealized loss on available-for-sale securities	CHF 4,000

EXERCISE 12-11 (Continued)

(c) Dear Mr. Linquist:

Investments which are classified as fair value through profit or loss (held for sale in the near term) are reported at fair value in the statement of financial position, with unrealized gains or losses reported in net income. Investments which are classified as available-for-sale (held longer than FVPL but not to maturity) are also reported at fair value, but unrealized gains or losses are reported in the equity section.

Fair value is used as a reporting basis because it represents the cash realizable value of the securities. Unrealized gains or losses on FVPL investments are reported in the income statement because of the likelihood that the securities will be sold at fair value in the near term. Unrealized gains or losses on available-for-sale securities are reported in equity rather than in income because there is a significant chance that future changes in fair value will reverse unrealized gains or losses. So as to not distort income with these fluctuations, they are reported directly in equity.

I hope that the preceding discussion clears up any misunderstandings. Please contact me if you have any questions.

Sincerely,

Student

EXERCISE 12-12

(a)

Market Adjustment—FVPL ($124,000 – $120,000)	4,000	
Unrealized Gain—Income		4,000
Unrealized Gain or Loss—Equity	6,000	
Market Adjustment—AFS		6,000

(b)

Statement of Financial Position

Current assets	
Short-term investments, at fair value	$124,000
Investments	
Investment in shares of less than 20% owned companies, at fair value	94,000
Equity	
Less: Unrealized loss on available-for-sale securities	$ 6,000

Income Statement

Other income and expense	
Unrealized gain on FVPL securities	$ 4,000

*EXERCISE 12-13

LENNON COMPANY AND SUBSIDIARY
Worksheet—Consolidated Statement of Financial Position
January 1, 2011

Assets	Lennon Company	Ono Ltd.	Eliminations Dr.	Eliminations Cr.	Consolidated Data
Plant and equipment (net)	300,000	220,000			520,000
Investment in Ono Ltd. ordinary shares	220,000			220,000	0
Current assets	60,000	50,000			110,000
Totals	580,000	270,000			630,000
Equity and liabilities					
Share capital—Lennon Co.	230,000				230,000
Share capital—Ono Ltd.		80,000	80,000		0
Retained earnings—Lennon Co.	170,000				170,000
Retained earnings—Ono Ltd.		140,000	140,000		0
Current liabilities	180,000	50,000			230,000
Totals	580,000	270,000	220,000	220,000	630,000

*EXERCISE 12-14

LENNON COMPANY AND SUBSIDIARY
Worksheet—Consolidated Statement of Financial Position
January 1, 2011

Assets	Lennon Company	Ono Ltd.	Eliminations Dr.	Eliminations Cr.	Consolidated Data
Plant and equipment (net)	300,000	220,000			520,000
Investment in Ono Ltd. ordinary shares	225,000			225,000	0
Current assets	55,000	50,000			105,000
Excess of cost over book value			5,000		5,000
Totals	580,000	270,000			630,000
Equity and liabilities					
Share capital—Lennon Co.	230,000				230,000
Share capital —Ono Ltd.		80,000	80,000		0
Retained earnings—Lennon Co.	170,000				170,000
Retained earnings—Ono Ltd.		140,000	140,000		0
Current liabilities	180,000	50,000			230,000
Totals	580,000	270,000	220,000	225,000	630,000

SOLUTIONS TO PROBLEMS

PROBLEM 12-1A

(a)

2011				
Jan.	1	Debt Investments	2,000,000	
		Cash		2,000,000
July	1	Cash (HK$2,000,000 X .08 X 1/2)	80,000	
		Interest Revenue		80,000
Dec.	31	Interest Receivable	80,000	
		Interest Revenue		80,000
2014				
Jan.	1	Cash	80,000	
		Interest Receivable		80,000
	1	Cash [(HK$1,000,000 X 1.06) – HK$6,000]	1,054,000	
		Debt Investments		1,000,000
		Gain on Sale of Debt Investments		54,000
July	1	Cash (HK$1,000,000 X .08 X 1/2)	40,000	
		Interest Revenue		40,000
Dec.	31	Interest Receivable	40,000	
		Interest Revenue		40,000

(b)

2011				
Dec.	31	Market Adjustment—AFS	200,000	
		Unrealized Gain or Loss—Equity		200,000

PROBLEM 12-1A (Continued)

(c) **Statement of Financial Position**

Current assets

Interest receivable	**HK$**	**80,000**

Investments

Debt investments, at fair value	**HK$2,200,000**

The unrealized gain of HK$200,000 would be reported in the equity section of the statement of financial position as an addition to total share capital and retained earnings.

PROBLEM 12-2A

(a) Feb.	1	Share Investments	32,400	
		Cash ($31,800 + $600)		32,400
Mar.	1	Share Investments	20,400	
		Cash ($20,000 + $400)		20,400
Apr.	1	Debt Investments	51,000	
		Cash ($50,000 + $1,000)		51,000
July	1	Cash ($.60 X 600)	360	
		Dividend Revenue		360
Aug.	1	Cash ($11,600 – $200)	11,400	
		Share Investments [($32,400 ÷ 600) X 200]		10,800
		Gain on Sale of Share Investments		600
Sept.	1	Cash ($1 X 800)	800	
		Dividend Revenue		800
Oct.	1	Cash ($50,000 X 7% X 1/2)	1,750	
		Interest Revenue		1,750
	1	Cash ($50,000 – $1,000)	49,000	
		Loss on Sale of Debt Investments ($51,000 – $49,000)	2,000	
		Debt Investments		51,000

Share Investments

Feb. 1	32,400	Aug. 1	10,800
Mar. 1	20,400		
Dec. 31 Bal.	42,000		

Debt Investments

Apr. 1	51,000	Oct. 1	51,000
Dec. 31 Bal.	0		

PROBLEM 12-2A (Continued)

(b) Dec. 31 Unrealized Loss—Income 800
Market Adjustment—FVPL
($42,000 – $41,200) 800

Security	Cost	Fair Value	
Hiens ordinary	$21,600	$22,000	(400 X $55)
Pryce ordinary	20,400	19,200	(800 X $24)
	$42,000	$41,200	

(c) Current assets
Short-term investments, at fair value $41,200

(d)

Income Statement Account	Category
Dividend Revenue	Other income and expense
Gain on Sale of Share Investments	Other income and expense
Interest Revenue	Other income and expense
Loss on Sale of Debt Investments	Other income and expense
Unrealized Loss—Income	Other income and expense

PROBLEM 12-3A

(a)

	2012		
July 1	Cash (5,000 X £1)	5,000	
	Dividend Revenue		5,000
Aug. 1	Cash (2,000 X £.50)	1,000	
	Dividend Revenue		1,000
Sept. 1	Cash [(1,500 X £8) – £300]	11,700	
	Loss on Sale of Share Investments (£13,500 – £11,700)	1,800	
	Share Investments (1,500 X £9)		13,500
Oct. 1	Cash [(800 X £33) – £500]	25,900	
	Share Investments (800 X £30)		24,000
	Gain on Sale of Share Investments (£25,900 – £24,000)		1,900
Nov. 1	Cash (1,500 X £1)	1,500	
	Dividend Revenue		1,500
Dec. 15	Cash (1,200 X £.50)	600	
	Dividend Revenue		600
31	Cash (3,500 X £1)	3,500	
	Dividend Revenue		3,500

Share Investments

2012			2012	
Jan. 1	Balance	135,000	Sept. 1	13,500
			Oct. 1	24,000
2012				
Dec. 31	Balance	97,500		

PROBLEM 12-3A (Continued)

(b)	Dec. 31	Unrealized Gain or Loss—Equity (£97,500 – £93,400)	4,100	
		Market Adjustment—AFS		4,100

Security	Cost	Fair Value	
Hurst Co. shares	£36,000	£38,400	(1,200 X £32)
Pine Co. shares	31,500	28,000	(3,500 X £ 8)
Scott Co. shares	30,000	27,000	(1,500 X £18)
	£97,500	£93,400	

(c)

Investments		
Investment in shares of less than 20% owned companies, at fair value		£ 93,400
Equity		
Share capital	£1,500,000	
Retained earnings	1,000,000	
	2,500,000	
Less: Unrealized loss on available-for-sale securities	4,100	
Total equity		£2,495,900

PROBLEM 12-4A

(a)	Jan. 1	Share Investments	800,000	
		Cash		800,000
	Mar. 15	Cash	13,500	
		Dividend Revenue (45,000 X $.30)		13,500
	June 15	Cash	13,500	
		Dividend Revenue		13,500
	Sept. 15	Cash	13,500	
		Dividend Revenue		13,500
	Dec. 15	Cash	13,500	
		Dividend Revenue		13,500
	31	Market Adjustment—FVPL	280,000	
		Unrealized Gain—Income [$800,000 – ($24 X 45,000)]		280,000
(b)	Jan. 1	Share Investments	800,000	
		Cash		800,000
	Mar. 15	Cash	13,500	
		Share Investments		13,500
	June 15	Cash	13,500	
		Share Investments		13,500
	Sept. 15	Cash	13,500	
		Share Investments		13,500
	Dec. 15	Cash	13,500	
		Share Investments		13,500

PROBLEM 12-4A (Continued)

Dec. 31	Share Investments	96,000	
	Revenue from Investment in Nickels Company ($320,000 X 30%)		96,000

(c)

	Cost Method	Equity Method
Share Investments		
Ordinary shares	$1,080,000*	$842,000**
Unrealized gain—income	280,000	
Dividend revenue	54,000	0
Revenue from investment in Nickels Company	0	96,000

*$24 X 45,000 shares
**$800,000 + $96,000 – $54,000

PROBLEM 12-5A

(a)

Date	Account	Debit	Credit
Jan. 20	Cash (R$55,000 – R$600)	54,400	
	Investment in Abel Co. Ordinary Shares		52,000
	Gain on Sale of Share Investments		2,400
28	Investment in Rosen Company Ordinary Shares	31,680	
	Cash [(400 X R$78) + R$480]		31,680
30	Cash	1,610	
	Dividend Revenue (R$1.15 X 1,400)		1,610
Feb. 8	Cash	480	
	Dividend Revenue (R$.40 X 1,200)		480
18	Cash [(R$27 X 1,200) – R$360]	32,040	
	Loss on Sale of Share Investments	1,560	
	Investment in Weiss Co. Preference Shares		33,600
July 30	Cash	1,400	
	Dividend Revenue (R$1.00 X 1,400)		1,400
Sept. 6	Investment in Rosen Company Ordinary Shares	75,000	
	Cash [(R$82 X 900) + R$1,200]		75,000
Dec. 1	Cash	1,950	
	Dividend Revenue (R$1.50 X 1,300)		1,950

(b)

Investment in Abel Co. Ordinary Shares

1/1 Bal.	52,000	1/20	52,000
12/31 Bal.	0		

Investment in Frey Company Ordinary Shares

1/1 Bal.	84,000		
12/31 Bal.	84,000		

PROBLEM 12-5A (Continued)

Investment in Weiss Co. Preference Shares			
1/1 Bal.	33,600	2/18	33,600
12/31 Bal.	0		

Investment in Rosen Company Ordinary Shares			
1/28	31,680		
9/6	75,000		
12/31 Bal.	106,680		

(c)	Dec. 31	Unrealized Gain or Loss—Equity	7,480	
		Market Adjustment—AFS (R$190,680 – R$183,200)		7,480

Security	Cost	Fair Value	
Frey Company ordinary	R$ 84,000	R$ 89,600	(1,400 X R$64)
Rosen Company ordinary	106,680	93,600	(1,300 X R$72)
	R$190,680	R$183,200	

(d) Investments

Investment in shares of less than 20% owned companies, at fair value	R$183,200

Equity

Total share capital and retained earnings	xxxxx
Less: Unrealized loss on available-for-sale securities	7,480
Total equity	R$ xxxxx

PROBLEM 12-6A

URBINA COMPANY
Statement of Financial Position
December 31, 2011

		Assets	
Intangible assets			
Goodwill			$200,000
Property, plant, and equipment			
Land		$390,000	
Buildings	$950,000		
Less: Accumulated depreciation	180,000	770,000	
Equipment	275,000		
Less: Accumulated depreciation	52,000	223,000	1,383,000
Investments			
Investment in shares of less than 20% of owned companies, at fair value		286,000	
Investment in shares of 20%–50% owned company, at equity		380,000	666,000
Current assets			
Prepaid insurance		16,000	
Merchandise inventory		170,000	
Accounts receivable	$140,000		
Less: Allowance for doubtful accounts	6,000	134,000	
Short-term share investment, at fair value		180,000	
Cash		42,000	542,000
Total assets			$2,791,000

URBINA COMPANY
Statement of Financial Position (Continued)
December 31, 2011

Equity and Liabilities

Equity			
Share capital—ordinary, $10 par value, 500,000 shares authorized, 150,000 shares issued and outstanding	$1,500,000		
Share premium—ordinary	130,000	$1,630,000	
Retained earnings		103,000	
Add: Unrealized gain on available-for-sale securities		8,000	$1,741,000
Long-term liabilities			
Bonds payable, 10%, due 2019			540,000
Current liabilities			
Notes payable		$ 70,000	
Accounts payable		240,000	
Income taxes payable		120,000	
Dividends payable		80,000	510,000
Total equity and liabilities			$2,791,000

*PROBLEM 12-7A

(a)

2011			
Dec. 31	Share Investments	1,225,000	
	Current Assets		1,225,000

(b)

LIU COMPANY AND SUBSIDIARY
Worksheet—Consolidated Statement of Financial Position
December 31, 2011

Assets	LIU Company	Yang Plastics	Eliminations Dr.	Eliminations Cr.	Consolidated Data
Plant and equipment (net)	2,100,000	676,000	86,000		2,862,000
Investment in Yang Plastics ordinary shares	1,225,000			1,225,000	0
Current assets	255,000	435,500			690,500
Excess of cost over book value of subsidiary			120,000		120,000
Totals	3,580,000	1,111,500			3,672,500
Equity and liabilities					
Share capital—LIU Company	1,950,000				1,950,000
Share capital—Yang Plastics		525,000	525,000		0
Retained earnings—LIU Company	1,052,000				1,052,000
Retained earnings—Yang Plastics		494,000	494,000		0
Current liabilities	578,000	92,500			670,500
Totals	3,580,000	1,111,500	1,225,000	1,225,000	3,672,500

*PROBLEM 12-7A (Continued)

(c)

LIU COMPANY AND SUBSIDIARY
Consolidated Statement of Financial Position
December 31, 2011

Assets		
Goodwill (¥206,000 – ¥86,000)		¥ 120,000
Plant and equipment, net (¥2,776,000 + ¥86,000)		2,862,000
Current assets		690,500
Total assets		¥3,672,500
Equity and Liabilities		
Equity		
Share capital—ordinary	¥1,950,000	
Retained earnings	1,052,000	¥3,002,000
Current liabilities		670,500
Total equity and liabilities		¥3,672,500

PROBLEM 12-1B

(a)	2011			
	Jan. 1	Debt Investments	400,000	
		Cash		400,000
	July 1	Cash ($400,000 X .09 X 1/2)	18,000	
		Interest Revenue		18,000
	Dec. 31	Interest Receivable	18,000	
		Interest Revenue		18,000
	2014			
	Jan. 1	Cash	18,000	
		Interest Receivable		18,000
	1	Cash [($200,000 X 1.14) – $7,000]	221,000	
		Debt Investments		200,000
		Gain on Sale of Debt Investments		21,000
	July 1	Cash ($200,000 X .09 X 1/2)	9,000	
		Interest Revenue		9,000
	Dec. 31	Interest Receivable	9,000	
		Interest Revenue		9,000
(b)	2011			
	Dec. 31	Unrealized Gain or Loss—Equity	15,000	
		Market Adjustment—AFS		15,000

PROBLEM 12-1B (Continued)

(c) **Statement of Financial Position**

Current assets	
Interest receivable	**$ 18,000**
Investments	
Debt investments, at fair value	**$385,000**

The unrealized loss of $15,000 would be reported in the equity section of the statement of financial position as a deduction from total share capital and retained earnings.

PROBLEM 12-2B

(a)	Feb. 1	Share Investments	30,800	
		Cash (TL30,000 + TL800)		30,800
	Mar. 1	Share Investments	20,300	
		Cash (TL20,000 + TL300)		20,300
	Apr. 1	Debt Investments	41,200	
		Cash (TL40,000 + TL1,200)		41,200
	July 1	Cash (TL.60 X 500)	300	
		Dividend Revenue		300
	Aug. 1	Cash (TL20,700 – TL350)	20,350	
		Gain on Sale of Share Investments		1,870
		Share Investments [(TL30,800 ÷ 500) X 300]		18,480
	Sept. 1	Cash (TL1 X 600)	600	
		Dividend Revenue		600
	Oct. 1	Cash (TL40,000 X 9% X 1/2)	1,800	
		Interest Revenue		1,800
	1	Cash (TL45,000 – TL1,000)	44,000	
		Debt Investments		41,200
		Gain on Sale of Debt Investments (TL44,000 – TL41,200)		2,800

Share Investments

Feb. 1	30,800	Aug. 1	18,480
Mar. 1	20,300		
Dec. 31 Bal.	32,620		

Debt Investments

Apr. 1	41,200	Oct. 1	41,200
Dec. 31 Bal.	0		

PROBLEM 12-2B (Continued)

(b) Dec. 31 Unrealized Loss—Income 2,020
Market Adjustment—FVPL 2,020

Security	Cost	Fair Value	
DET ordinary	TL12,320	TL13,200	(200 X TL66)
STL ordinary	20,300	17,400	(600 X TL29)
	TL32,620	TL30,600	

(c) Current assets
Short-term investments, at fair value TL30,600

(d)

Income Statement Account	Category
Dividend Revenue	Other income and expense
Gain on Sale of Share Investments	Other income and expense
Interest Revenue	Other income and expense
Gain on Sale of Debt Investments	Other income and expense
Unrealized Loss—Income	Other income and expense

PROBLEM 12-3B

(a)

Date	Account	Debit	Credit
	2012		
July 1	Cash (5,000 X $1)	5,000	
	Dividend Revenue		5,000
Aug. 1	Cash (4,000 X $.50)	2,000	
	Dividend Revenue		2,000
Sept. 1	Cash [(1,500 X $8) – $300]	11,700	
	Share Investments (1,500 X $6)		9,000
	Gain on Sale of Share Investments		2,700
Oct. 1	Cash [(600 X $30) – $600]	17,400	
	Share Investments (600 X $25)		15,000
	Gain on Sale of Share Investments [$17,400 – ($15,000)]		2,400
Nov. 1	Cash (3,000 X $1)	3,000	
	Dividend Revenue		3,000
Dec. 15	Cash (3,400 X $.50)	1,700	
	Dividend Revenue		1,700
31	Cash (3,500 X $1)	3,500	
	Dividend Revenue		3,500

Share Investments

2012			2012	
Jan. 1	Balance	190,000	Sept. 1	9,000
			Oct. 1	15,000
2012				
Dec. 31	Balance	166,000		

PROBLEM 12-3B (Continued)

(b)	Dec. 31	Unrealized Gain or Loss—Equity ($166,000 – $159,700)	6,300	
		Market Adjustment—AFS		6,300

Security	Cost	Fair Value	
Adel Co. shares	$ 85,000	$ 78,200	(3,400 X $23)
Beran Co. shares	21,000	24,500	(3,500 X $ 7)
Caren Co. shares	60,000	57,000	(3,000 X $19)
	$166,000	$159,700	

(c) Investments

Investment in shares of less than 20% owned companies, at fair value		$ 159,700
Equity		
Share capital	$2,000,000	
Retained earnings	1,200,000	
	3,200,000	
Less: Unrealized loss on available-for-sale securities	6,300	
Total equity		$3,193,700

PROBLEM 12-4B

(a)

Date	Account Titles	Debit	Credit
2011			
Jan. 1	Share Investments	1,100,000	
	Cash		1,100,000
June 30	Cash	20,000	
	Dividend Revenue (40,000 X $.50)		20,000
Dec. 31	Cash	20,000	
	Dividend Revenue (40,000 X $.50)		20,000
31	Market Adjustment—AFS	100,000	
	Unrealized Gain or Loss—Equity [$1,100,000 – ($30 X 40,000)]		100,000

(b)

Date	Account Titles	Debit	Credit
2011			
Jan. 1	Share Investments	1,100,000	
	Cash		1,100,000
June 30	Cash	20,000	
	Share Investments		20,000
Dec. 31	Cash	20,000	
	Share Investments		20,000
31	Share Investments	120,000	
	Revenue from Investment in Blakeley, Inc. ($600,000 X 20%)		120,000

PROBLEM 12-4B (Continued)

(c)

	Cost Method	Equity Method
Share Investments		
Ordinary shares	$1,200,000*	$1,180,000**
Unrealized gain—equity	100,000	
Dividend revenue	40,000	0
Revenue from investment in Blakeley, Inc.	0	120,000

*$30 X 40,000 shares
**$1,100,000 + $120,000 – $40,000

PROBLEM 12-5B

(a)

Jan.	7	Cash (€39,200 – €700)	38,500	
		Investment in Adler Co. Ordinary Shares		35,000
		Gain on Sale of Share Investment		3,500
	10	Investment in Pesavento Company Ordinary Shares	23,640	
		Cash [(300 X €78) + €240]		23,640
	26	Cash	1,035	
		Dividend Revenue (€1.15 X 900)		1,035
Feb.	2	Cash	320	
		Dividend Revenue (€.40 X 800)		320
	10	Cash [(€26 X 800) – €180]	20,620	
		Loss on Sale of Share Investment	1,780	
		Investment in Swanson Company Preference Shares		22,400
July	1	Cash	900	
		Dividend Revenue (€1.00 X 900)		900
Sept.	1	Investment in Pesavento Company Ordinary Shares	60,900	
		Cash [(€75 X 800) + €900]		60,900
Dec.	15	Cash	1,650	
		Dividend Revenue (€1.50 X 1,100)		1,650

(b)

Investment in Adler Company Ordinary Shares

1/1 Bal.	35,000	1/7	35,000
12/31 Bal.	0		

Investment in Lynn Company Ordinary Shares

1/1 Bal.	42,000		
12/31 Bal.	42,000		

PROBLEM 12-5B (Continued)

Investment in Swanson Company Preference Shares			
1/1 Bal.	22,400	2/10	22,400
12/31 Bal.	0		

Investment in Pesavento Company Ordinary Shares			
1/10	23,640		
9/1	60,900		
12/31 Bal.	84,540		

(c) Dec. 31 Unrealized Gain or Loss—Equity 4,140
Market Adjustment—AFS
(€126,540 – €122,400) 4,140

Security	Cost	Fair Value	
Lynn Company Ordinary	€ 42,000	€ 43,200	(900 X €48)
Pesavento Company Ordinary	84,540	79,200	(1,100 X €72)
	€126,540	€122,400	

(d) Investments

Investment in shares of less than 20% owned companies, at fair value €122,400

Equity

Total share capital and retained earnings	xxxxx
Less: Unrealized loss on available-for-sale securities	4,140
Total equity	€ xxxxx

PROBLEM 12-6B

NICHOLS COMPANY
Statement of Financial Position
December 31, 2011

Assets			
Intangibles			
Goodwill			CHF300,000
Property, plant, and equipment			
Land		CHF780,000	
Buildings	CHF1,350,000		
Less: Accumulated depreciation	270,000	1,080,000	
Equipment	415,000		
Less: Accumulated depreciation	80,000	335,000	2,195,000
Investments			
Investment in shares of 20%–50% owned company, at equity			900,000
Current assets			
Prepaid insurance		25,000	
Merchandise inventory		255,000	
Accounts receivable	135,000		
Less: Allowance for doubtful accounts	10,000	125,000	
Short-term share investment, at fair value		280,000	
Cash		210,000	895,000
Total assets			CHF4,290,000

PROBLEM 12-6B (Continued)

NICHOLS COMPANY
Statement of Financial Position (Continued)
December 31, 2011

Equity and Liabilities

Equity		
Share capital—ordinary, CHF5 par value, 500,000 shares authorized, 440,000 shares issued and outstanding	CHF2,200,000	
Share premium—ordinary	300,000	
Retained earnings	480,000	CHF2,980,000
Long-term liabilities		
Bonds payable, 10%, due 2021		570,000
Current liabilities		
Notes payable	110,000	
Accounts payable	375,000	
Income taxes payable	180,000	
Dividends payable	75,000	740,000
Total equity and liabilities		CHF4,290,000

*PROBLEM 12-7B

(a)

Dec. 31	Share Investments	710,000	
	Current Assets		710,000

(b)

PATEL COMPANY AND SUBSIDIARY
Worksheet—Consolidated Statement of Financial Position
December 31, 2011

Assets	Patel Company	Singh Company	Eliminations Dr.	Eliminations Cr.	Consolidated Data
Plant and equipment (net)	1,882,000	351,000	20,000		2,253,000
Investment in Singh Company ordinary shares	710,000			710,000	0
Current assets	768,000	379,000			1,147,000
Excess of cost over book value of subsidiary			50,000		50,000
Totals	3,360,000	730,000			3,450,000
Equity and Liabilities					
Share capital— Patel Company	1,947,000				1,947,000
Share capital — Singh Company		360,000	360,000		0
Retained earnings— Patel Company	543,000				543,000
Retained earnings— Singh Company		280,000	280,000		0
Current liabilities	870,000	90,000			960,000
Totals	3,360,000	730,000	710,000	710,000	3,450,000

(c)

PATEL COMPANY AND SUBSIDIARY
Consolidated Statement of Financial Position
December 31, 2011

Assets		
Goodwill ($70,000 – $20,000)		$ 50,000
Plant and equipment, net ($2,233,000 + $20,000)		2,253,000
Current assets		1,147,000
Total assets		$3,450,000
Equity and Liabilities		
Equity		
Share capital—ordinary	$1,947,000	
Retained earnings	543,000	$2,490,000
Current liabilities		960,000
Total equity and liabilities		$3,450,000

COMPREHENSIVE PROBLEM: CHAPTERS 10 TO 12

Part I

(a) **To:** Mindy Feldkamp, Oscar Lopez, and Lori Melton

From: Joe Student

Date: 5/26/2010

Re: Analysis of Partnership vs. Corporate Form of Business Organization

I have examined your situation regarding the establishment of your business. Before discussing my recommendations, I would like to briefly review the advantages and disadvantages of partnerships and corporations.

The primary advantages of a partnership over a corporation are:

1. Partnerships are more easily formed than corporations. Partnerships can be formed simply by the voluntary agreement of two or more individuals. Forming a corporation requires preparing and filing documents with governmental agencies, paying incorporation fees, etc.

2. Income from a partnership is subject to less tax than income from a corporation. Even though partnerships are required to file information tax returns (returns that show financial information, but do not require any payment of taxes), they are not considered taxable entities. A partner's share of partnership income is taxed only on the partner's personal income tax return. Corporations are taxable entities and pay taxes on corporate income. In addition, any dividends distributed by corporations to individuals are subject to personal income tax on the personal income tax return. This is known as double taxation.

3. Partnerships have more flexibility in decision making. The decision-making process used in a partnership is determined by the partners, whereas some decisions required in corporations must follow formal procedures described in the bylaws of the corporation.

The primary advantages of a corporation over a partnership are:

1. **Mutual agency does not exist in a corporation. This means that the owners of a corporation (shareholders) do not have the power to bind the corporation beyond their authority. For example, a shareholder who is not employed by the firm cannot enter into contracts or other agreements on behalf of the corporation. Owners of a partnership (partners) are bound by the actions of their partners, even when partners act beyond the scope of their authority. This is true as long as the actions seem appropriate for the business.**

2. **The owners of a corporation have limited liability. When the corporation's assets are not sufficient to pay creditors' claims, the personal assets of the shareholders are protected from the corporation's creditors. In a partnership, once the assets of the partnership have been used to pay creditors' claims, the personal assets of the partners can be taken to satisfy the creditors' demands. A special type of partnership, a limited partnership, protects the personal assets of limited partners, but at least one partner's assets are still at risk. This partner is called a general partner.**

3. **The life of a corporation is unlimited. When ownership changes occur (e.g., shareholders buy or sell shares), the corporation continues to exist as a legal entity. When ownership changes occur in a partnership (e.g., existing partner leaves, new partner is added), the old partnership no longer exists as a legal entity. A new partnership can be formed and the business can continue, but the original partnership must be dissolved.**

After examining your situation, I believe that you would be wise to choose the corporate form of business organization. There are two reasons for this recommendation. The first reason is that the venture you are about to undertake will require significant capital and, generally, capital is more easily raised via a corporation than a partnership. The other reason is that you will be protected from unlimited liability if you incorporate as opposed to forming a partnership. Given the potential risk of starting a venture of this kind, I believe it is in your best interest to protect your personal assets by using the corporate form of organization.

I wish you the best in your new endeavor and please call upon me when you are in need of further assistance.

COMPREHENSIVE PROBLEM (Continued)

Part II

(b) **Equity financing option:**

Positives	Negatives
No fixed interest payments required	Control of the corporation is lost
	Difficulty of finding an interested investor
	Earnings per share are lower

Debt financing option:

Positives	Negatives
Control stays with three incorporators	Interest payments quickly drain cash
No need for additional investor	
Earnings per share are higher	

Shares outstanding before financing 60,000 shares

	Equity Financing	Debt Financing
Income before interest and taxes	$300,000	$300,000
Interest expense	—	126,000
Income before taxes	300,000	174,000
Tax expense	96,000	55,680
Net income	$204,000	$118,320
Shares outstanding after financing	200,000	60,000
Earnings per share	$ 1.02	$ 1.97

Part III

(c) 1.

6/12/10	Cash	100,000	
	Building	200,000	
	Share Capital—Ordinary		120,000
	Share Premium—Ordinary		180,000

7/21/10	Cash	900,000	
	Share Capital—Ordinary		180,000
	Share Premium—Ordinary		720,000
7/27/11	Share Dividends (150,000 X .10 X $3)	45,000	
	Ordinary Share Dividends Distributable		30,000
	Share Premium—Ordinary		15,000
7/31/11	No entry		
8/15/11	Ordinary Share Dividends Distributable	30,000	
	Share Capital—Ordinary		30,000
12/4/11	Cash Dividends (165,000 X $.05)	8,250	
	Dividends Payable		8,250
12/14/11	No entry		
12/24/11	Dividends Payable	8,250	
	Cash		8,250

2. Shares Issued and Outstanding

Date	Event	Number of Shares Issued	Total Shares Issued and Outstanding
6/12/10	Issuance to Incorporators	60,000	60,000
7/21/10	Issuance to Marino	90,000	150,000
8/15/11	Share dividend issuance	15,000	165,000

Part IV

(d) 1.

6/1/12	Cash	548,000	
	Bonds Payable		548,000

COMPREHENSIVE PROBLEM (Continued)

2.	12/1/12	Interest Expense		20,600	
			Bonds Payable ($52,000 ÷ 20)		2,600
			Cash ($600,000 X .03)		18,000
3.	12/31/12	Interest Expense		3,433	
			Bonds Payable [($52,000 ÷ 20) ÷ 6]		433
			Interest Payable [($600,000 X .03) ÷ 6]		3,000
4.	6/1/13	Interest Payable		3,000	
		Interest Expense ($20,600 – $3,433)		17,167	
			Cash		18,000
			Bonds Payable ($2,600 – $433)		2,167

Part V

(e)	1.	2010	Investment in LifePath		900,000	
				Cash		900,000
			Investment in LifePath		18,000	
				Investment Revenue (.6 X $30,000)		18,000
			Cash		1,260	
				Investment in LifePath (.6 X $2,100)		1,260
		2011	Investment in LifePath		42,000	
				Investment Revenue (.6 X $70,000)		42,000
			Cash		12,000	
				Investment in LifePath (.6 X $20,000)		12,000

COMPREHENSIVE PROBLEM (Continued)

2012	Investment in LifePath	63,000	
	Investment Revenue		
	(.6 X $105,000).........................		63,000
	Cash..	30,000	
	Investment in LifePath		
	(.6 X $50,000)...........................		30,000

2\. Investment in LifePath

900,000	
18,000	1,260
42,000	12,000
63,000	30,000
979,740	

BYP 12-1 FINANCIAL REPORTING PROBLEM

(a) Cadbury made the following statement about what was included on its consolidated financial statement:

The financial statements are presented in the form of Group financial statements. The Group financial statements consolidate the accounts of the Company and the entities controlled by the Company (including all of its subsidiary entities) after eliminating internal transactions and recognising any minority interests in those entities. Control is achieved where the Company has the power to govern the financial and operating policies of an investee entity so as to obtain economic benefits from its activities.

Minority interests are shown as a component of equity in the statement of financial position and the share of profit attributable to minority interests is shown as a component of profit for the period in the consolidated income statement.

Results of subsidiary undertakings acquired during the financial year are included in Group profit from the effective date of control. The separable net assets, both tangible and intangible, of newly acquired subsidiary undertakings are incorporated into the financial statements on the basis of the fair value to the Group as at the effective date of control.

Results of subsidiary undertakings disposed of during the financial year are included in Group profit up to the effective date of disposal.

Investments in subsidiaries are stated at cost less, where appropriate, provisions for impairment.

Entities in which the Group is in a position to exercise significant influence but does not have the power to control or jointly control are associated undertakings. Joint ventures are those entities in which the Group has joint control. The results, assets and liabilities of associated undertakings and interests in joint ventures are incorporated into the Group's financial statements using the equity method of accounting.

The Group's share of the profit after interest and tax of associated undertakings is included as one line below profit from operations. Investment in associated undertakings are carried in the balance sheet at cost as adjusted by post-acquisition changes in the Group's share of the net assets of the entity. All associated undertakings have financial years that are coterminous with the Group's, with the exception of Camelot Group plc ("Camelot") whose financial year ends in March. The Group's share of the profits of Camelot is based on its most recent, unaudited financial statements to 30 September.

(b) Cadbury's Consolidated Statement of Cash Flows shows that £16 million was received from acquisitions of businesses and associates and £60 from acquisitions and disposal.

BYP 12-2 COMPARATIVE ANALYSIS PROBLEM

(a)

(in millions)	Cadbury	Nestlé
1. Cash from or (used for) investing activities	(£831)	CHF4,699
2. Cash from or (used for) capital expenditures (spending)	(500)	(4,869)

(b) Cadbury has an ownership interest in the following companies: Camelot Group, Crystal Candy, Meito Adams, and Xtra pack.

BYP 12-3 EXPLORING THE WEB

Answers will vary depending on company chosen. The following sample solution is provided for Medtronic, Inc.

(a) 30 analysts rated this company.

(b) 10/30 or 33% of the analysts rated it a strong buy.

(c) Average rating 2.0 on a scale of 1.0 (strong buy) to 5.0 (strong sell).

(d) Average rating: No change.

(e) Analysts rank this company 16 of 52.

(f) Earnings surprise 0%.

BYP 12-4 DECISION MAKING ACROSS THE ORGANIZATION

The dollar amount received upon the sale of the UMW Company shares was $1,468,000. Since Kemper company has a 30% interest in UMW, the equity method should be used to report dividends and net income. A reconstruction of the correct entries can be prepared for the acquisition, the equity method treatment of dividends and revenue, and the sale. A plug figure for cash will balance the entry for the sale. These entries are provided below.

Both the shareholder and the president are correct. Since the equity method adjusts the investment account for the earnings of the investee, the "very profitable" UMW investment balance has increased during the period the shares were held. The shares were sold at less than its current investment balance and thus a loss was recognized. Shareholder Kerwin is correct in labeling this a very profitable company and in noting that a loss was recognized on its sale.

President Chavez is correct in that the investment was sold at a higher figure than the $1,300,000 purchase price. The key to the dilemma is to note that the selling price was less than the carrying amount of the investment. The carrying amount has increased due to the recognition of UMW income during the time the shares were held.

Entries for the investment in UMW Company:

Acquisition

Share Investments	1,300,000	
Cash		1,300,000

Previous Years—Equity Method

Share Investments	372,000	
Revenue from Investment in UMW Company ($1,240,000 X 30%)		372,000
Cash	132,000	
Share Investments ($440,000 X 30%)		132,000

BYP 12-4 (Continued)

This Year—Equity Method

Share Investments	156,000	
Revenue from Investment in UMW Company ($520,000 X 30%)		156,000
Cash	48,000	
Share Investments ($160,000 X 30%)		48,000

Sale of the UMW Company Shares

Cash (Cash is a plug.)	1,468,000	
Loss on Sale of Share Investments	180,000	
Share Investments		1,648,000*

*$1,300,000 + ($372,000 + $156,000) – ($132,000 + $48,000)

BYP 12-5 COMMUNICATION ACTIVITY

Dear Mr. Scholes:

I am writing this memo to make suggestions regarding the appropriate treatment for the two securities you are holding in your portfolio. Assuming that your investment in Longley Company does not represent a significant interest in that firm, it should be accounted for as an available-for-sale security because it is a share investment that you do not intend on selling in the near future. You will not report any gains or losses on this investment in your income statement until you sell it. On the other hand, your debt investment should be accounted for as a FVPL security since you purchased it with the intent to generate a short-term profit. Unrealized gains and losses at your statement of financial position date should be reported directly in income.

BYP 12-6 ETHICS CASE

(a) Classifying the securities as they propose will indeed have the effect on net income that they say it will. Classifying all the gains as FVPL securities will cause all the gains to flow through the income statement this year and classifying the losses as available-for-sale securities will defer the losses from this year's income statement. Classifying the gains and losses just the opposite will have the opposite effect.

(b) What each proposes is unethical since it is knowingly not in accordance with IFRS. The financial statements are fraudulently, not fairly, stated. The affected stakeholders are other members of the company's officers and directors, the independent auditors (who may detect these misstatements), the shareholders, and prospective investors.

(c) The act of selling certain securities (those with gains or those with losses) is management's choice and is not per se unethical. Accounting principles allow the sale of selected securities so long as the method of assigning cost adopted by the company is consistently applied. If the officers act in the best interest of the company and its stakeholders, and in accordance with IFRS, and not in their self-interest, their behavior is probably ethical. Knowingly engaging in unsound and poor business and accounting practices that waste assets or that misstate financial statements is unethical behavior.

CHAPTER 13

Statement of Cash Flows

ASSIGNMENT CLASSIFICATION TABLE

Study Objectives		Questions	Brief Exercises	Do It!	Exercises	A Problems	B Problems
1.	Indicate the usefulness of the statement of cash flows.	1, 2, 15					
2.	Distinguish among operating, investing, and financing activities.	3, 4, 5, 6, 7, 8, 9, 21	1, 2, 3	1	1, 2, 3	1A	1B
3.	Prepare a statement of cash flows using the indirect method.	10, 11, 12, 13, 14	4, 5, 6, 7	2	4, 5, 6, 7, 8, 9	2A, 3A, 5A, 7A, 9A, 11A	2B, 3B, 5B, 7B, 9B, 11B
4.	Analyze the statement of cash flows.		8, 9, 10, 11	3	7, 9	7A, 8A	7B, 8B
*5.	Explain how to use a worksheet to prepare the statement of cash flows using the indirect method.	16	12		10	12A	
*6.	Prepare a statement of cash flows using the direct method.	8, 17, 18, 19, 20	13, 14, 15		11, 12, 13, 14	4A, 6A, 8A, 10A	4B, 6B, 8B, 10B

***Note:** All **asterisked** Questions, Exercises, and Problems relate to material contained in the appendix to the chapter.

ASSIGNMENT CHARACTERISTICS TABLE

Problem Number	Description	Difficulty Level	Time Allotted (min.)
1A	Distinguish among operating, investing, and financing activities.	Simple	10–15
2A	Determine cash flow effects of changes in equity accounts.	Simple	10–15
3A	Prepare the operating activities section—indirect method.	Simple	20–30
*4A	Prepare the operating activities section—direct method.	Simple	20–30
5A	Prepare the operating activities section—indirect method.	Simple	20–30
*6A	Prepare the operating activities section—direct method.	Simple	20–30
7A	Prepare a statement of cash flows—indirect method, and compute free cash flow.	Moderate	40–50
*8A	Prepare a statement of cash flows—direct method, and compute free cash flow.	Moderate	40–50
9A	Prepare a statement of cash flows—indirect method.	Moderate	40–50
*10A	Prepare a statement of cash flows—direct method.	Moderate	40–50
11A	Prepare a statement of cash flows—indirect method.	Moderate	40–50
*12A	Prepare a worksheet—indirect method.	Moderate	40–50
1B	Distinguish among operating, investing, and financing activities.	Simple	10–15
2B	Determine cash flow effects of changes in plant asset accounts.	Simple	10–15
3B	Prepare the operating activities section—indirect method.	Simple	20–30
*4B	Prepare the operating activities section—direct method.	Simple	20–30
5B	Prepare the operating activities section—indirect method.	Simple	20–30
*6B	Prepare the operating activities section—direct method.	Simple	20–30
7B	Prepare a statement of cash flows—indirect method, and compute free cash flow.	Moderate	40–50

ASSIGNMENT CHARACTERISTICS TABLE (Continued)

Problem Number	Description	Difficulty Level	Time Allotted (min.)
*8B	Prepare a statement of cash flows—direct method, and compute free cash flow.	Moderate	40–50
9B	Prepare a statement of cash flows—indirect method.	Moderate	40–50
*10B	Prepare a statement of cash flows—direct method.	Moderate	40–50
11B	Prepare a statement of cash flows—indirect method.	Moderate	40–50

WEYGANDT IFRS 1E
CHAPTER 13
STATEMENT OF CASH FLOWS

Number	SO	BT	Difficulty	Time (min.)
BE1	2	K	Simple	3–5
BE2	2	C	Simple	2–4
BE3	2	AP	Simple	3–5
BE4	3	AP	Simple	4–6
BE5	3	AP	Simple	3–5
BE6	3	AP	Simple	4–6
BE7	3	AN	Moderate	3–5
BE8	4	AN	Simple	2–4
BE9	4	AN	Simple	2–3
BE10	4	AN	Simple	2–3
BE11	4	AN	Simple	4–6
BE12	5	AP	Simple	4–6
BE13	6	AP	Simple	2–4
BE14	6	AP	Simple	3–5
BE15	6	AP	Moderate	3–5
DI1	2	C	Simple	2–4
DI2	3	AP	Simple	4–6
DI3	4	AN	Simple	4–6
EX1	2	C	Simple	5–7
EX2	2	C	Simple	6–8
EX3	2	AP	Simple	8–10
EX4	3	AP	Simple	5–7
EX5	3	AP	Simple	6–8
EX6	3	AN	Moderate	10–12
EX7	3, 4	AP	Simple	12–14
EX8	3	AP	Simple	10–12
EX9	3, 4	AP	Simple	12–14
EX10	5	AP	Moderate	16–20
EX11	6	AP	Moderate	6–8
EX12	6	AP	Moderate	6–8
EX13	6	AP	Simple	5–7

STATEMENT OF CASH FLOWS (Continued)

Number	SO	BT	Difficulty	Time (min.)
EX14	6	AP	Moderate	6–8
P1A	2	C	Simple	10–15
P2A	3	AN	Simple	10–15
P3A	3	AP	Simple	20–30
P4A	6	AP	Simple	20–30
P5A	3	AP	Simple	20–30
P6A	6	AP	Simple	20–30
P7A	3, 4	AP, AN	Moderate	40–50
P8A	4, 6	AP, AN	Moderate	40–50
P9A	3	AP	Moderate	40–50
P10A	6	AP	Moderate	40–50
P11A	3	AP	Moderate	40–50
P12A	5	AP	Moderate	40–50
P1B	2	C	Simple	10–15
P2B	3	AN	Simple	10–15
P3B	3	AP	Simple	20–30
P4B	6	AP	Simple	20–30
P5B	3	AP	Simple	20–30
P6B	6	AP	Simple	20–30
P7B	3, 4	AP, AN	Moderate	40–50
P8B	4, 6	AP, AN	Moderate	40–50
P9B	3	AP	Moderate	40–50
P10B	6	AP	Moderate	40–50
P11B	3	AP	Moderate	40–50
BYP1	2	AN	Simple	15–20
BYP2	4	AP, E	Simple	8–12
BYP3	—	C	Simple	15–20
BYP4	—	C	Simple	10–15
BYP5	3	AP, E	Moderate	25–30
BYP6	3	AP	Simple	10–15
BYP7	2	E	Simple	10–15

BLOOM'S TAXONOMY TABLE

Correlation Chart between Bloom's Taxonomy, Study Objectives and End-of-Chapter Exercises and Problems

Study Objective	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
1. Indicate the usefulness of the statement of cash flows.		Q13-1 Q13-15 Q13-2				
2. Distinguish among operating, investing, and financing activities.	Q13-4 Q13-6 Q13-21 BE13-1	Q13-3 DI13-1 Q13-5 E13-1 Q13-7 E13-2 Q13-8 P13-1A Q13-9 P13-1B BE13-2	BE13-3 E13-2 E13-3			
3. Prepare a statement of cash flows using the indirect method.	Q13-13	Q13-10 Q13-11 Q13-12 Q13-14	BE13-4 E13-8 P13-3B BE13-5 E13-9 P13-5B BE13-6 P13-3A P13-7B DI13-2 P13-5A P13-9B E13-4 P13-7A P13-11B E13-5 P13-9A E13-7 P13-11A	BE13-7 E13-6 P13-2A P13-2B P13-7A P13-7B		
4. Analyze the statement of cash flows.			E13-7 P13-8B E13-9 P13-7A P13-8A P13-7B	BE13-8 P13-7A BE13-9 P13-8A BE13-10 P13-7B BE13-11 P13-8B DI13-3		
*5 Explain how to use a worksheet to prepare the statement of cash flows using the indirect method.		Q13-16	BE13-12 E13-10 P13-12A			
*6. Prepare a statement of cash flows using the direct method.	Q13-17	Q13-8 Q13-19 Q13-20	Q13-18 E13-13 P13-4B BE13-13 E13-14 P13-6B BE13-14 P13-4A P13-8B BE13-15 P13-6A P13-10B E13-11 P13-8A E13-12 P13-10A	P13-8A P13-8B		
Broadening Your Perspective		Exploring the Web	Comparative Analysis Decision Making Across the Organization Communication	Financial Reporting		Comp. Analysis Decision Making Across the Organization Ethics Case

ANSWERS TO QUESTIONS

1. (a) The statement of cash flows reports the cash receipts, cash payments, and net change in cash resulting from the operating, investing, and financing activities of a company during a period.

(b) Disagree. The statement of cash flows is required. It is the fourth basic financial statement.

2. The statement of cash flows answers the following questions about cash: (a) Where did the cash come from during the period? (b) What was the cash used for during the period? and (c) What was the change in the cash balance during the period?

3. The three types of activities are:
Operating activities include the cash effects of transactions that create revenues and expenses and thus enter into the determination of net income.
Investing activities include: (a) acquiring and disposing of investments and property, plant and equipment and (b) lending money and collecting loans.
Financing activities include: (a) obtaining cash from issuing debt and repaying amounts borrowed and (b) obtaining cash from shareholders, repurchasing shares, and paying dividends.

4. (a) Major inflows of cash in a statement of cash flows include cash from operations; issuance of debt; collection of loans; issuance of share capital; sale of investments; and the sale of property, plant, and equipment.

(b) Major outflows of cash include purchase of inventory, payment of wages and other operating expenses, payment of cash dividends; redemption of debt; purchase of investments; making loans; redemption of share capital; and the purchase of property, plant, and equipment.

5. The statement of cash flows presents investing and financing activities so that even noncash transactions of an investing and financing nature are disclosed in the financial statements. If they affect financial conditions significantly, the IASB requires that they be disclosed in either a separate note or supplementary schedule to the financial statements.

6. Examples of significant noncash activities are: (1) issuance of shares for assets, (2) conversion of bonds into ordinary shares, (3) issuance of bonds or notes for assets, and (4) noncash exchanges of property, plant, and equipment.

7. Comparative statements of financial position, a current income statement, and certain transaction data all provide information necessary for preparation of the statement of cash flows. Comparative statements of financial position indicate how assets, liabilities, and equities have changed during the period. A current income statement provides information about the amount of cash provided or used by operations. Certain transactions provide additional detailed information needed to determine how cash was provided or used during the period.

8. The advantage of the **direct method** is that it presents the major categories of cash receipts and cash payments in a format that is similar to the income statement and familiar to statement users. Its principal disadvantage is that the necessary data can be expensive and time-consuming to accumulate.

The advantage of the **indirect method** is it is often considered easier to prepare, and it focuses on the differences between net income and net cash provided by operating activities. It also tends to reveal less company information to competitors. Its primary disadvantage is the difficulty in understanding the adjustments that comprise the reconciliation.

Both methods are acceptable but the IASB expressed a preference for the direct method. Yet, the indirect method is the overwhelming favorite of companies.

9. When total cash inflows exceed total cash outflows, the excess is identified as a "net increase in cash" near the bottom of the statement of cash flows.

10. The indirect method involves converting accrual net income to net cash provided by operating activities. This is done by starting with accrual net income and adding or subtracting noncash items included in net income. Examples of adjustments include depreciation and other noncash expenses, gains and losses on the sale of non-current assets, and changes in the balances of current asset and current liability accounts from one period to the next.

11. It is necessary to convert accrual-based net income to cash-basis income because the unadjusted net income includes items that do not provide or use cash. An example would be an increase in accounts receivable. If accounts receivable increased during the period, revenues reported on the accrual basis would be higher than the actual cash revenues received. Thus, accrual-basis net income must be adjusted to reflect the net cash provided by operating activities.

12. A number of factors could have caused an increase in cash despite the net loss. These are (1) high cash revenues relative to low cash expenses; (2) sales of property, plant, and equipment; (3) sales of investments; (4) issuance of debt or share capital, and (5) differences between cash and accrual accounting, e.g. depreciation.

13. Depreciation expense.
Gain or loss on sale of a non-current asset.
Increase/decrease in accounts receivable.
Increase/decrease in inventory.
Increase/decrease in accounts payable.

14. Under the indirect method, depreciation is added back to net income to reconcile net income to net cash provided by operating activities because depreciation is an expense but not a cash payment.

15. The statement of cash flows is useful because it provides information to the investors, creditors, and other users about: (1) the company's ability to generate future cash flows, (2) the company's ability to pay dividends and meet obligations, (3) the reasons for the difference between net income and net cash provided by operating activities, and (4) the cash investing and financing transactions during the period.

*16. A worksheet is desirable because it allows the accumulation and classification of data that will appear on the statement of cash flows. It is an optional but efficient device that aids in the preparation of the statement of cash flows.

*17. Net cash provided by operating activities under the direct approach is the difference between cash revenues and cash expenses. The direct approach adjusts the revenues and expenses directly to reflect the cash basis. This results in cash net income, which is equal to "net cash provided by operating activities."

***18.** (a) Cash receipts from customers = Revenues from sales
+ Decrease in accounts receivable
– Increase in accounts receivable

(b) Purchases = Cost of goods sold
+ Increase in inventory
– Decrease in inventory

Cash payments to suppliers = Purchases
+ Decrease in accounts payable
– Increase in accounts payable

***19.**

Sales	$2,000,000
Add: Decrease in accounts receivable	200,000
Cash receipts from customers	$2,200,000

***20.** Depreciation expense is not listed in the direct method operating activities section because it is not a cash flow item—it does not affect cash.

21. In its 2008 statement of cash flows, Cadbury reported £469 million net cash provided by operating activities, £831 million used for investing activities, and £31 million used for financing activities.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 13-1

(a) Cash inflow from financing activity, TL200,000.
(b) Cash outflow from investing activity, TL150,000.
(c) Cash inflow from investing activity, TL20,000.
(d) Cash outflow from financing activity, TL50,000.

BRIEF EXERCISE 13-2

(a) Investing activity.
(b) Investing activity.
(c) Financing activity.
(d) Operating activity.
(e) Financing activity.
(f) Financing activity.

BRIEF EXERCISE 13-3

Cash flows from financing activities	
Proceeds from issuance of bonds payable	$300,000
Payment of dividends	(50,000)
Net cash provided by financing activities	$250,000

BRIEF EXERCISE 13-4

Net income		€2,500,000
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation expense	€160,000	
Decrease in accounts receivable	350,000	
Decrease in accounts payable	(280,000)	230,000
Net cash provided by operating activities		€2,730,000

BRIEF EXERCISE 13-5

Cash flows from operating activities		
Net income		$280,000
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation expense	$70,000	
Loss on sale of plant assets	12,000	82,000
Net cash provided by operating activities		$362,000

BRIEF EXERCISE 13-6

Net income		R$200,000
Adjustments to reconcile net income to net cash provided by operating activities		
Decrease in accounts receivable	R$ 80,000	
Increase in prepaid expenses	(28,000)	
Increase in inventories	(30,000)	22,000
Net cash provided by operating activities		R$222,000

BRIEF EXERCISE 13-7

Original cost of equipment sold	$22,000
Less: Accumulated depreciation	5,500
Book value of equipment sold	16,500
Less: Loss on sale of equipment	4,500
Cash received from sale of equipment	$12,000

BRIEF EXERCISE 13-8

Free cash flow = $155,793,000 – $132,280,000 – $0 = $23,513,000

BRIEF EXERCISE 13-9

Free cash flow = £360,000 – £200,000 – £0 = £160,000

BRIEF EXERCISE 13-10

Free cash flow = $45,600,000 – $1,600,000 = $44,000,000

BRIEF EXERCISE 13-11

Free cash flow is cash provided by operations less capital expenditures and cash dividends paid. For Radar Ltd. this would be €384,000 (€734,000 – €280,000 – €70,000). Since it has positive free cash flow that far exceeds its dividend, an increase in the dividend might be possible. However, other factors should be considered. For example, it must have adequate retained earnings, and it should be convinced that a larger dividend can be sustained over future years. It should also use the free cash flow to expand its operations or pay down its debt.

*BRIEF EXERCISE 13-12

Statement of Financial Position Accounts	Balance 1/1/XX	Reconciling Items Debit	Reconciling Items Credit	Balance 12/31/XX
Prepaid expenses	18,600		(a) 6,600	12,000
Accrued expenses payable	8,200		(b) 2,400	10,600
Statement of Cash Flow Effects				
Operating activities				
Decrease in prepaid expenses		(a) 6,600		
Increase in accrued expenses payable		(b) 2,400		
		9,000	9,000	

*BRIEF EXERCISE 13-13

Receipts from customers = Sales revenues { + Decrease in accounts receivable / – Increase in accounts receivable }

$1,033,678,000 = $1,095,307,000 – $61,629,000 (Increase in accounts receivable)

*BRIEF EXERCISE 13-14

Cash payments for income taxes = Income Tax Expense
+ Decrease in income taxes payable
– Increase in income taxes payable

$95,000,000 = $340,000,000 – $245,000,000*

*$522,000,000 – $277,000,000 = $245,000,000 (Increase in income taxes payable)

*BRIEF EXERCISE 13-15

Cash payments for operating expenses = Operating expenses, excluding depreciation
+ Increase in prepaid expenses
– Decrease in prepaid expenses

and

+ Decrease in accrued expenses payable
– Increase in accrued expenses payable

€69,000 = €80,000 – €6,600 – €4,400

SOLUTIONS TO DO IT! REVIEW EXERCISES

DO IT! 13-1

1. Financing activity
2. Operating activity
3. Financing activity
4. Investing activity
5. Investing activity

DO IT! 13-2

Cash flows from operating activities		
Net income		**R$100,000**
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation expense	**R$6,000**	
Patent amortization expense	**2,000**	
Gain on sale of equipment	**(3,600)**	
Decrease in accounts receivable	**6,000**	
Increase in accounts payable	**3,200**	**13,600**
Net cash provided by operating activities		**R$113,600**

DO IT! 13-3

(a) Free cash flow = $73,700 – $27,000 – $15,000 = $31,700

(b) Cash provided by operating activities fails to take into account that a company must invest in new plant assets just to maintain the current level of operations. Companies must also maintain dividends at current levels to satisfy investors. The measurement of free cash flow provides additional insight regarding a company's cash-generating ability.

SOLUTIONS TO EXERCISES

EXERCISE 13-1

(a) Financing activities.
(b) Noncash investing and financing activities.
(c) Noncash investing and financing activities.
(d) Financing activities.
(e) Investing activities.
(f) Operating activities.
(g) Operating activities.

EXERCISE 13-2

(a) Operating activity.
(b) Noncash investing and financing activity.
(c) Investing activity.
(d) Financing activity.
(e) Operating activity.
(f) Operating activity.
(g) Operating activity.
(h) Financing activity.
(i) Operating activity.
(j) Noncash investing and financing activity.
(k) Investing activity.
(l) Noncash investing and financing activity.
(m) Operating activity (loss); investing activity (cash proceeds from sale).
(n) Financing activity.

EXERCISE 13-3

1. (a)

Cash	15,000	
Land		12,000
Gain on Disposal		3,000

(b) The cash receipt (£15,000) is reported in the investing section. The gain (£3,000) is deducted from net income in the operating section.

2. (a)

Cash	20,000	
Share Capital—Ordinary		20,000

(b) The cash receipt (£20,000) is reported in the financing section.

3. (a)

Depreciation Expense	17,000	
Accumulated Depreciation.............		17,000

(b) Depreciation expense (£17,000) is added to net income in the operating section.

EXERCISE 13-3 (Continued)

4. (a)

Salaries Expense	9,000	
Cash		9,000

(b) Salaries expense is not reported separately on the statement of cash flows. It is part of the computation of net income in the income statement, and is included in the net income amount on the statement of cash flows.

5. (a)

Equipment	8,000	
Share Capital—Ordinary		1,000
Share Premium—Ordinary		7,000

(b) The issuance of ordinary shares for equipment (£8,000) is reported as a non-cash financing and investing activity at the bottom of the statement of cash flows.

6. (a)

Cash	1,200	
Loss on Disposal	1,800	
Accumulated Depreciation	7,000	
Equipment		10,000

(b) The cash receipt (£1,200) is reported in the investing section. The loss (£1,800) is added to net income in the operating section.

EXERCISE 13-4

VILLA COMPANY
Partial Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities		
Net income		$195,000
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation expense	$45,000	
Loss on sale of equipment	5,000	
Increase in accounts payable	17,000	
Decrease in accounts receivable	15,000	
Decrease in prepaid expenses	4,000	86,000
Net cash provided by operating activities		$281,000

EXERCISE 13-5

BELLINHAM CO.
Partial Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities		
Net income		€153,000
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation expense	€24,000	
Decrease in inventory	14,000	
Increase in accrued expenses payable	10,000	
Increase in prepaid expenses	(5,000)	
Decrease in accounts payable	(7,000)	
Increase in accounts receivable	(21,000)	15,000
Net cash provided by operating activities		€168,000

EXERCISE 13-6

CESAR CO.
Partial Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities		
Net income		$ 67,000
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation expense	$ 28,000	
Loss on sale of equipment	5,000	33,000
Net cash provided by operating activities		100,000
Cash flows from investing activities		
Sale of equipment	14,000*	
Construction of equipment	(53,000)	
Purchase of equipment	(70,000)	
Net cash used by investing activities		(109,000)
Cash flows from financing activities		
Payment of cash dividends		(14,000)

*Cost of equipment sold	$ 49,000
Accumulated depreciation	(30,000)
Book value	19,000
Loss on sale of equipment	(5,000)
Cash proceeds	$ 14,000

EXERCISE 13-7

(a)

SCULLY COMPANY
Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities		
Net income		£ 22,630
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation expense	£ 5,000	
Loss on sale of land	1,100*	
Decrease in accounts receivable	2,200	
Decrease in accounts payable	(18,730)	(10,430)
Net cash provided by operating activities		12,200
Cash flows from investing activities		
Sale of land		4,900
Cash flows from financing activities		
Issuance of ordinary shares	6,000	
Payment of dividends	(19,500)	
Net cash used by financing activities		(13,500)
Net increase in cash		3,600
Cash at beginning of period		10,700
Cash at end of period		£ 14,300

*(£26,000 – £20,000) – £4,900

(b) £12,200 – £0 – £19,500 = (£7,300)

EXERCISE 13-8

TAGUCHI COMPANY
Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities		
Net income		$103,000
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation expense	$34,000	
Decrease in inventory	19,000	
Decrease in accounts payable	(8,000)	
Increase in accounts receivable	(9,000)	36,000
Net cash provided by operating activities		139,000
Cash flows from investing activities		
Sale of land	25,000	
Purchase of equipment	(60,000)	
Net cash used by investing activities		(35,000)
Cash flows from financing activities		
Issuance of ordinary shares	42,000	
Payment of cash dividends	(45,000)	
Redemption of bonds	(50,000)	
Net cash used by financing activities		(53,000)
Net increase in cash		51,000
Cash at beginning of period		22,000
Cash at end of period		$ 73,000

EXERCISE 13-9

(a)

MULDUR COMPANY
Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities		
Net income		€18,300
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation expense	€ 5,200*	
Loss on sale of equipment	5,500**	
Increase in accounts payable	3,500	
Increase in accounts receivable	(2,900)	11,300
Net cash provided by operating activities		29,600
Cash flows from investing activities		
Sale of equipment	3,300	
Purchase of investments	(4,000)	
Net cash used by investing activities		(700)
Cash flows from financing activities		
Issuance of ordinary shares	5,000	
Payment of dividends	(16,400)	
Retirement of bonds	(20,000)	
Net cash used by financing activities		(31,400)
Net increase in cash		(2,500)
Cash at beginning of period		17,700
Cash at end of period		€15,200

*[€14,000 – (€10,000 – €1,200)]   **[€3,300 – (€10,000 – €1,200)]

(b) €29,600 – €0 – €16,400 = €13,200

*EXERCISE 13-10

EDDIE MURPHY COMPANY
Worksheet
Statement of Cash Flows
For the Year Ended December 31, 2011

Statement of Financial Position Accounts	Balance 12/31/10	Reconciling Items Debit		Reconciling Items Credit		Balance 12/31/11
Debits						
Land	100,000			(e)	25,000	75,000
Equipment	200,000	(f)	60,000			260,000
Inventories	189,000			(b)	9,000	180,000
Accounts receivable	76,000	(a)	9,000			85,000
Cash	22,000	(k)	41,000			63,000
Total	587,000					663,000
Credits						
Share capital—ordinary	164,000			(i)	50,000	214,000
Retained earnings	134,000	(g)	60,000	(j)	125,000	199,000
Bonds payable	200,000	(h)	50,000			150,000
Accounts payable	47,000	(c)	13,000			34,000
Accumulated depreciation—equipment	42,000			(d)	24,000	66,000
Total	587,000					663,000
Statement of Cash Flow Effects						
Operating activities						
Net income		(j)	125,000			
Increase in accounts receivable				(a)	9,000	
Decrease in inventories		(b)	9,000			
Decrease in accounts payable				(c)	13,000	
Depreciation expense		(d)	24,000			
Investing activities						
Sale of land		(e)	25,000			
Purchase of equipment				(f)	60,000	
Financing activities						
Payment of dividends				(g)	60,000	
Redemption of bonds				(h)	50,000	
Issuance of ordinary shares		(i)	50,000			
Totals			466,000		425,000	
Increase in cash				(k)	41,000	
Totals			466,000		466,000	

*EXERCISE 13-11

Revenues	R$192,000	
Deduct: Increase in accounts receivable	60,000	
Cash receipts from customers*		R$132,000
Operating expenses	78,000	
Deduct: Increase in accounts payable	23,000	
Cash payments for operating expenses**		55,000
Net cash provided by operating activities		R$ 77,000

* Accounts Receivable

Balance, Beginning of year	0		
Revenues for the year	192,000	Cash receipts for year	132,000
Balance, End of year	60,000		

** Accounts Payable

		Balance, Beginning of year	0
Payments for the year	55,000	Operating expenses for year	78,000
		Balance, End of year	23,000

*EXERCISE 13-12

(a) Cash payments to suppliers

Cost of goods sold	$4,852.7	million
Add: Increase in inventory	18.1	
Cost of purchases	$4,870.8	million
Deduct: Increase in accounts payable	136.9	
Cash payments to suppliers	$4,733.9	million

(b) Cash payments for operating expenses

Operating expenses exclusive of depreciation ($10,671.5 – $1,201)		$9,470.5	million
Add: Increase in prepaid expenses	$ 56.3		
Deduct: Increase in accrued expenses payable	160.9	104.6	
Cash payments for operating expenses		$9,365.9	million

*EXERCISE 13-13

Cash flows from operating activities		
Cash receipts from		
Customers	**£230,000***	
Dividend revenue	**18,000**	
		£248,000
Less cash payments:		
To suppliers for merchandise	**115,000**	
For salaries and wages	**53,000**	
For operating expenses	**28,000**	
For income taxes	**12,000**	
For interest	**10,000**	**218,000**
Net cash provided by operating activities		**£ 30,000**

***£48,000 + £182,000**

*EXERCISE 13-14

Cash payments for rentals	
Rent expense	**$ 40,000**
Add: Increase in prepaid rent	**3,100**
Cash payments for rent	**$ 43,100**

Cash payments for salaries	
Salaries expense	**$ 54,000**
Add: Decrease in salaries payable	**2,000**
Cash payments for salaries	**$ 56,000**

Cash receipts from customers	
Revenue from sales	**$170,000**
Add: Decrease in accounts receivable	**9,000**
Cash receipts from customers	**$179,000**

SOLUTIONS TO PROBLEMS

PROBLEM 13-1A

	Transaction	Where Reported	Cash Inflow, Outflow, or No Effect?
(a)	Recorded depreciation expense on the plant assets.	O	No cash flow effect
(b)	Recorded and paid interest expense.	O	Cash outflow
(c)	Recorded cash proceeds from a sale of plant assets.	I	Cash inflow
(d)	Acquired land by issuing ordinary shares.	NC	No cash flow effect
(e)	Paid a cash dividend to preference shareholders.	F	Cash outflow
(f)	Distributed a share dividend to ordinary shareholders.	NC	No cash flow effect
(g)	Recorded cash sales.	O	Cash inflow
(h)	Recorded sales on account.	O	No cash flow effect
(i)	Purchased inventory for cash.	O	Cash outflow
(j)	Purchased inventory on account.	O	No cash flow effect

PROBLEM 13-2A

(a) Net income can be determined by analyzing the retained earnings account.

Retained earnings beginning of year	$260,000
Add: Net income (plug)	65,500*
	325,500
Less: Cash dividends	15,000
Share dividends	10,500
Retained earnings, end of year	$300,000

*($300,000 + $10,500 + $15,000 – $260,000)

(b) Cash inflow from the issue of shares was $9,500 ($160,000 – $140,000 – $10,500).

Share Capital—Ordinary

Debit	Credit	
	140,000	
	10,500	Share Dividend
	9,500	Shares Issued for Cash
	160,000	

Cash outflow for dividends was $15,000. The share dividend does not use cash.

(c) Both of the above activities (issue of ordinary shares and payment of dividends) would be classified as financing activities on the statement of cash flows.

PROBLEM 13-3A

ELBERT COMPANY
Partial Statement of Cash Flows
For the Year Ended November 30, 2011

Cash flows from operating activities		
Net income		€1,650,000
Adjustments to reconcile net income to net cash provided by operating activities activities		
Depreciation expense	€ 90,000	
Decrease in inventory	500,000	
Decrease in accrued expenses payable	(100,000)	
Increase in prepaid expenses	(150,000)	
Increase in accounts receivable	(250,000)	
Decrease in accounts payable	(340,000)	(250,000)
Net cash provided by operating activities		€1,400,000

*PROBLEM 13-4A

ELBERT COMPANY
Partial Statement of Cash Flows
For the Year Ended November 30, 2011

Cash flows from operating activities		
Cash receipts from customers		€7,450,000 (1)
Less cash payments:		
To suppliers	€4,740,000 (2)	
For operating expenses	1,310,000 (3)	6,050,000
Net cash provided by operating activities		€1,400,000

Computations:

(1) Cash receipts from customers

Sales	€7,700,000
Deduct: Increase in accounts receivable	250,000
Cash receipts from customers	€7,450,000

(2) Cash payments to suppliers

Cost of goods sold	€4,900,000
Deduct: Decrease in inventories	500,000
Cost of purchases	4,400,000
Add: Decrease in accounts payable	340,000
Cash payments to suppliers	€4,740,000

(3) Cash payments for operating expenses

Operating expenses, exclusive of depreciation		€1,060,000*
Add: Increase in prepaid expenses	€150,000	
Decrease in accrued expenses payable	100,000	250,000
Cash payments for operating expenses		€1,310,000

*€1,150,000 – €90,000

PROBLEM 13-5A

GRANIA COMPANY
Partial Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities		
Net income		$230,000
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation expense	$ 60,000	
Loss on sale of equipment	16,000	
Increase in accounts payable	13,000	
Increase in income taxes payable	4,000	
Increase in accounts receivable	(15,000)	78,000
Net cash provided by operating activities		$308,000

*PROBLEM 13-6A

GRANIA COMPANY
Partial Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities		
Cash receipts from customers		$955,000 (1)
Less cash payments:		
For operating expenses	$611,000 (2)	
For income taxes	36,000 (3)	647,000
Net cash provided by operating activities..		$308,000

(1) **Computation of cash receipts from customers**

Revenues	$970,000
Deduct: Increase in accounts receivable ($75,000 – $60,000)...	15,000
Cash receipts from customers	$955,000

(2) **Computation of cash payments for operating expenses**

Operating expenses per income statement	$624,000
Deduct: Increase in accounts payable ($41,000 – $28,000)...	13,000
Cash payments for operating expenses...................	$611,000

(3) **Computation of cash payments for income taxes**

Income tax expense per income statement..............	$ 40,000
Deduct: Increase in income taxes payable ($11,000 – $7,000)..	4,000
Cash payments for income taxes	$ 36,000

PROBLEM 13-7A

(a)

WELLER COMPANY
Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities		
Net income		£32,000
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation expense	£14,500	
Increase in accounts payable	14,000	
Decrease in income taxes payable	(1,000)	
Increase in merchandise inventory	(7,000)	
Increase in accounts receivable	(19,000)	1,500
Net cash provided by operating activities		33,500
Cash flows from investing activities		
Sale of equipment		8,500
Cash flows from financing activities		
Issuance of ordinary shares	4,000	
Redemption of bonds	(6,000)	
Payment of dividends	(25,000)	
Net cash used by financing activities		(27,000)
Net increase in cash		15,000
Cash at beginning of period		20,000
Cash at end of period		£35,000

(b) £33,500 – £0 – £25,000 = £8,500

*PROBLEM 13-8A

(a)

WELLER COMPANY
Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities				
Cash receipts from customers			£223,000	(1)
Less cash payments:				
To suppliers	£168,000	(2)		
For operating expenses	9,500	(3)		
For interest	3,000			
For income taxes	9,000	(4)	189,500	
Net cash provided by operating activities			33,500	
Cash flows from investing activities				
Sale of equipment			8,500	
Cash flows from financing activities				
Issuance of ordinary shares............	4,000			
Redemption of bonds	(6,000)			
Payment of dividends	(25,000)			
Net cash used by financing activities....................................			(27,000)	
Net decrease in cash....................................			15,000	
Cash at beginning of period			20,000	
Cash at end of period			£ 35,000	

Computations:

(1) Cash receipts from customers

Sales	£242,000
Deduct: Increase in accounts receivable	19,000
Cash receipts from customers	£223,000

***PROBLEM 13-8A (Continued)**

(2) Cash payments to suppliers

Cost of goods sold	£175,000
Add: Increase in inventory	7,000
Cost of purchases	182,000
Deduct: Increase in accounts payable	14,000
Cash payments to suppliers	£168,000

(3) Cash payments for operating expenses

Operating expenses	£ 24,000
Deduct: Depreciation	14,500
Cash payments for operating expenses	£ 9,500

(4) Cash payments for income taxes

Income tax expense	£ 8,000
Add: Decrease in income taxes payable	1,000
Cash payments for income taxes	£ 9,000

(b) £33,500 – £0 – £25,000 = £8,500

PROBLEM 13-9A

ARMA LTD.
Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities		
Net income		$158,900
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation expense	$46,500	
Loss on sale of plant assets	7,500	
Increase in accounts payable	44,700	
Decrease in accrued expenses payable	(500)	
Increase in prepaid expenses	(2,400)	
Increase in inventory	(9,650)	
Increase in accounts receivable	(59,800)	26,350
Net cash provided by operating activities		185,250
Cash flows from investing activities		
Sale of plant assets	1,500	
Purchase of investments	(24,000)	
Purchase of plant assets	(85,000)	
Net cash used by investing activities		(107,500)
Cash flows from financing activities		
Sale of ordinary shares	45,000	
Redemption of bonds	(40,000)	
Payment of cash dividends	(40,350)	
Net cash used by financing activities		(35,350)
Net increase in cash		42,400
Cash at beginning of period		48,400
Cash at end of period		$ 90,800

*PROBLEM 13-10A

ARMA LTD.
Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities		
Cash receipts from customers		$332,980 (1)
Less cash payments:		
To suppliers	$100,410 (2)	
For income taxes	27,280	
For operating expenses	15,310 (3)	
For interest	4,730	147,730
Net cash provided by operating activities		185,250
Cash flows from investing activities		
Sale of plant assets	1,500	
Purchase of investments	(24,000)	
Purchase of plant assets	(85,000)	
Net cash used by investing activities		(107,500)
Cash flows from financing activities		
Sale of ordinary shares	45,000	
Redemption of bonds	(40,000)	
Payment of cash dividends	(40,350)	
Net cash used by financing activities		(35,350)
Net increase in cash		42,400
Cash at beginning of period		48,400
Cash at end of period		$ 90,800

Computations:

(1) Cash receipts from customers

Sales	$392,780
Deduct: Increase in accounts receivable	59,800
Cash receipts from customers	$332,980

*PROBLEM 13-10A (Continued)

(2) Cash payments to suppliers

Cost of goods sold		$135,460
Add: Increase in inventory		9,650
Cost of purchases		145,110
Deduct: Increase in accounts payable		44,700
Cash payments to suppliers		$100,410

(3) Cash payments for operating expenses

Operating expenses exclusive of depreciation		$ 12,410
Add: Increase in prepaid expenses	$2,400	
Decrease in accrued expenses payable	500	2,900
Cash payments for operating expenses		$ 15,310

PROBLEM 13-11A

RAMIREZ COMPANY
Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities		
Net income		R$37,000
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation expense	R$42,000	
Loss on sale of equipment	4,000*	
Decrease in accounts receivable	18,000	
Increase in accounts payable	7,730	
Decrease in prepaid expenses	5,720	
Increase in inventory	(9,450)	68,000
Net cash provided by operating activities		105,000
Cash flows from investing activities		
Sale of land	25,000	
Sale of equipment	6,000	
Purchase of equipment	(95,000)	
Net cash used by investing activities		(64,000)
Cash flows from financing activities		
Payment of cash dividends	(15,000)	
Net cash used by financing activities		(15,000)
Net increase in cash		26,000
Cash at beginning of period		45,000
Cash at end of period		R$71,000

<u>Note X: Non-cash investing and financing activities</u>

Issuance of ordinary shares to acquire land	R$40,000

*(R$6,000 – R$10,000)

*PROBLEM 13-12A

OPRAH COMPANY
Worksheet—Statement of Cash Flows
For the Year Ended December 31, 2011

Statement of Financial Position Accounts	Balance 12/31/10	Reconciling Items Debit		Reconciling Items Credit		Balance 12/31/11
Debits						
Investments	87,000			(e)	2,500	84,500
Plant assets	205,000	(f)	92,000	(h)	47,000	250,000
Inventories	102,650	(b)	19,250			121,900
Accounts receivable	57,000	(a)	33,800			90,800
Cash	47,250	(m)	45,450			92,700
Totals	498,900					639,900
Credits						
Share capital—ordinary	200,000			(j)	50,000	250,000
Retained earnings	121,790	(l)	83,400	(k)	132,210	170,600
Bonds payable	70,000			(i)	30,000	100,000
Accumulated depreciation—plant assets	40,000	(h)	40,200	(g)	49,700	49,500
Accounts payable	48,280	(d)	6,730	(c)	9,420	57,700
Accrued expenses payable	18,830					12,100
Totals	498,900					639,900
Statement of Cash Flow Effects						
Operating activities						
Net income		(k)	132,210			
Increase in accounts receivable				(a)	33,800	
Increase in inventories				(b)	19,250	
Increase in accounts payable		(c)	9,420			
Decrease in accrued expenses payable				(d)	6,730	
Depreciation expense		(g)	49,700			
Gain on sale of plant assets				(h)	8,750	
Investing activities						
Sale of investments		(e)	2,500			
Sale of plant assets		(h)	15,550			
Purchase of plant assets				(f)	92,000	
Financing activities						
Sale of ordinary shares		(j)	50,000			
Issuance of bonds		(i)	30,000			
Payment of dividends				(l)	83,400	
Totals			610,210		564,760	
Increase in cash				(m)	45,450	
Totals			610,210		610,210	

PROBLEM 13-1B

	Transaction	Where reported?	Cash inflow, outflow, or no cash flow effect?
(a)	Recorded depreciation expense on the plant assets.	O	No cash flow effect
(b)	Incurred a loss on disposal of plant assets.	O	No cash flow effect
(c)	Acquired a building by paying cash.	I	Cash outflow
(d)	Made principal repayments on a mortgage.	F	Cash outflow
(e)	Issued ordinary shares	F	Cash inflow
(f)	Purchased shares of another company to be held as a long-term equity investment.	I	Cash outflow
(g)	Paid dividends to ordinary shareholders.	F	Cash outflow
(h)	Sold inventory on credit. The company uses a perpetual inventory system.	O	No cash flow effect
(i)	Purchased inventory on credit.	O	No cash flow effect
(j)	Paid wages to employees.	O	Cash outflow

PROBLEM 13-2B

(a) Cash inflows (outflows) related to plant assets 2011:

Equipment purchase	**(€95,000)**
Land purchase	**(30,000)**
Proceeds from equipment sales	**11,000***

***Cost of equipment sold €240,000 + €95,000 – €300,000 = €35,000**

Accumulated depreciation removed from accounts for sale of equipment

Accumulated depreciation—Equipment

	96,000	
Plug 16,000	**64,000**	**Depreciation Expense**
	144,000	

Cash proceeds = Cost €35,000 – accumulated depreciation €16,000 – loss €8,000 = €11,000

Note to instructor—some students may find journal entries helpful in understanding this exercise.

Equipment	**95,000**	
Cash		**95,000**
Land	**30,000**	
Cash		**30,000**
Cash (plug)	**11,000**	
Accumulated Depreciation	**16,000**	
Loss on Sale of Equipment	**8,000**	
Equipment		**35,000**

(b)

Equipment purchase	**Investing activities (outflow)**
Land purchase	**Investing activities (outflow)**
Proceeds from equipment sale	**Investing activities (inflow)**

PROBLEM 13-3B

ROSENTHAL COMPANY
Partial Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities		
Net income		$1,020,000
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation expense	$105,000	
Amortization expense	20,000	
Decrease in accounts receivable	320,000	
Increase in accrued expenses payable	155,000	
Increase in accounts payable	50,000	
Increase in inventory	(120,000)	
Increase in prepaid expenses	(175,000)	355,000
Net cash provided by operating activities		$1,375,000

*PROBLEM 13-4B

ROSENTHAL COMPANY
Partial Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities				
Cash receipts from customers			$5,720,000	(1)
Less cash payments:				
To suppliers	$3,380,000	(2)		
For operating expenses	965,000	(3)	4,345,000	
Net cash provided by operating activities			$1,375,000	

Computations:

(1) Cash receipts from customers

Sales	$5,400,000
Add: Decrease in accounts receivable	320,000
Cash receipts from customers	$5,720,000

(2) Cash payments to suppliers

Cost of goods sold	$3,310,000
Add: Increase in inventories	120,000
Cost of purchases	3,430,000
Deduct: Increase in accounts payable	50,000
Cash payments to suppliers	$3,380,000

(3) Cash payments for operating expenses

Operating expenses		$ 945,000
Add: Increase in prepaid expenses	$175,000	
Deduct: Increase in accrued expenses payable	155,000	20,000
Cash payments for operating expenses		$ 965,000

PROBLEM 13-5B

BRISLIN INC.
Partial Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities		
Net income		£109,000
Adjustments to reconcile net income to net cash provided by operating activities		
Decrease in accounts receivable	£ 20,000	
Increase in income taxes payable	6,000	
Decrease in accounts payable	(21,000)	5,000
Net cash provided by operating activities		£114,000

*PROBLEM 13-6B

BRISLIN INC.
Partial Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities				
Cash receipts from customers			£565,000	(1)
Less cash payments:				
For operating expenses	£421,000	(2)		
For income taxes	30,000	(3)	451,000	
Net cash provided by operating activities			£114,000	

(1) Computation of cash receipts from customers

Revenues	£545,000
Add: Decrease in accounts receivable (£70,000 – £50,000)	20,000
Cash receipts from customers	£565,000

(2) Computation of cash payments for operating expenses

Operating expenses	£400,000
Add: Decrease in accounts payable (£51,000 – £30,000)	21,000
Cash payments for operating expenses	£421,000

(3)

Income tax expense	£ 36,000
Deduct: Increase in income taxes payable (£10,000 – £4,000)	6,000
Cash payments for income taxes	£ 30,000

PROBLEM 13-7B

(a)

ORTEGA COMPANY
Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities		
Net income		$28,000
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation expense	$ 8,000	
Increase in income taxes payable	4,000	
Increase in accounts receivable	(11,000)	
Decrease in accounts payable	(12,000)	
Increase in inventory	(16,000)	(27,000)
Net cash provided by operating activities		1,000
Cash flows from investing activities		
Sale of equipment	10,000	
Purchase of equipment	(7,000)	
Net cash provided by investing activities		3,000
Cash flows from financing activities		
Issuance of bonds	10,000	
Payment of cash dividends	(23,000)	
Net cash used by financing activities		(13,000)
Net decrease in cash		(9,000)
Cash at beginning of period		33,000
Cash at end of period		$24,000

(b) $1,000 – $7,000 – $23,000 = ($29,000)

*PROBLEM 13-8B

(a)

ORTEGA COMPANY
Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities				
Cash receipts from customers			$275,000	(1)
Less cash payments:				
To suppliers	$232,000	(2)		
For operating expenses ($37,000 – $8,000)	29,000			
For interest	7,000			
For income taxes	6,000	(3)	274,000	
Net cash provided by operating activities			1,000	
Cash flows from investing activities				
Sale of equipment	10,000			
Purchase of equipment	(7,000)			
Net cash provided by investing activities			3,000	
Cash flows from financing activities				
Issuance of bonds	10,000			
Payment of cash dividends	(23,000)			
Net cash used by financing activities			(13,000)	
Net decrease in cash			(9,000)	
Cash at beginning of period			33,000	
Cash at end of period			$ 24,000	

Computations:

(1) Cash receipts from customers

Sales	$286,000
Deduct: Increase in accounts receivable	11,000
Cash receipts from customers	$275,000

***PROBLEM 13-8B (Continued)**

(2) Cash payments to suppliers

Cost of goods sold	$204,000
Add: Increase in inventory	16,000
Cost of purchases	220,000
Add: Decrease in accounts payable	12,000
Cash payments to suppliers	$232,000

(3) Cash payments for income taxes

Income tax expense	$ 10,000
Deduct: Increase in income taxes payable	4,000
Cash payments for income taxes	$ 6,000

(b) $1,000 – $7,000 – $23,000 = ($29,000)

PROBLEM 13-9B

ZIEBERT COMPANY
Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities		
Net income		€112,660
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation expense	€ 30,500	
Gain on sale of plant assets	(5,000)	
Increase in accounts payable	9,420	
Decrease in accrued expenses payable	(3,730)	
Increase in accounts receivable	(23,800)	
Increase in inventory	(24,250)	(16,860)
Net cash provided by operating activities		95,800
Cash flows from investing activities		
Sale of investments	27,500	
Sale of plant assets	15,000	
Purchase of plant assets	(146,000)	
Net cash used by investing activities		(103,500)
Cash flows from financing activities		
Issuance of bonds	75,000	
Sale of ordinary shares	50,000	
Payment of cash dividends	(48,000)	
Net cash provided by financing activities		77,000
Net increase in cash		69,300
Cash at beginning of period		33,400
Cash at end of period		€102,700

*PROBLEM 13-10B

ZIEBERT COMPANY
Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities				
Cash receipts from customers			€273,700	(1)
Less cash payments:				
To suppliers	€ 114,290	(2)		
For income taxes	37,270			
For operating expenses	23,400	(3)		
For interest	2,940		177,900	
Net cash provided by operating activities			95,800	
Cash flows from investing activities				
Sale of investments	27,500			
Sale of plant assets	15,000			
Purchase of plant assets	(146,000)			
Net cash used by investing activities			(103,500)	
Cash flows from financing activities				
Issuance of bonds	75,000			
Sale of ordinary shares	50,000			
Payment of cash dividends	(48,000)			
Net cash provided by financing activities			77,000	
Net increase in cash			69,300	
Cash at beginning of period			33,400	
Cash at end of period			€102,700	

***PROBLEM 13-10B (Continued)**

Computations:

(1) Cash receipts from customers

Sales	€297,500
Deduct: Increase in accounts receivable	23,800
Cash receipts from customers	€273,700

(2) Cash payments to suppliers

Cost of goods sold	€ 99,460
Add: Increase in inventory	24,250
Cost of purchases	123,710
Deduct: Increase in accounts payable	9,420
Cash payments to suppliers	€114,290

(3) Cash payments for operating expenses

Operating expenses	€ 19,670
Add: Decrease in accrued expenses payable	3,730
Cash payments for operating expenses	€ 23,400

PROBLEM 13-11B

MARIN COMPANY
Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities		
Net income		$47,890
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation expense	$ 55,000	
Gain on sale of equipment	(4,000)*	
Increase in accounts payable	13,000	
Decrease in prepaid expenses	4,400	
Increase in accounts receivable	(13,000)	
Increase in inventory	(32,000)	23,400
Net cash provided by operating activities		71,290
Cash flows from investing activities		
Sale of land	40,000	
Sale of equipment	37,000	
Purchase of equipment	(80,000)	
Net cash used by investing activities		(3,000)
Cash flows from financing activities		
Payment of cash dividends		(84,290)
Net decrease in cash		(16,000)
Cash at beginning of period		57,000
Cash at end of period		$41,000

<u>Note X: Non-cash investing and financing activities</u>

Issuance of ordinary shares to acquire land	$30,000

*($37,000 – $33,000)

BYP 13-1 FINANCIAL REPORTING PROBLEM

(a) Net cash provided by operating activities:

2008	£469 million
2007	£819 million

(b) The decrease in cash and cash equivalents for the year ended December 31, 2008 was £393 million, and the increase was £259 million for the year ended December 31, 2007.

(c) Cadbury uses the indirect method of computing and presenting the net cash provided by operating activities.

(d) The change in receivables required cash of £40 million in 2008. The change in inventories required cash of £32 million in 2008. The change in accounts payable provided cash of £2 million in 2008.

(e) The net cash used in investing activities in 2008 was £831 million.

(f) Note 34, disclosed interest paid of £165 million and income taxes paid-excluding disposals of £153 million and £44 as income taxes paid-disposals in 2008.

BYP 13-2 COMPARATIVE ANALYSIS PROBLEM

		Cadbury	Nestlé
(a)	£469 – £500 – £295 =	(£326)	
	CHF10,763 – CHF4,869 – CHF4,573 =		CHF1,321
	All amounts in millions		

(b) Nestlé is in a much better position. Its free cash flow is CHF1,321 compared to a negative amount of free cash flow for Cadbury.

BYP 13-3 EXPLORING THE WEB

(a) Crucial to the Securities and Exchange Commission's (SEC) effectiveness is its enforcement authority. Each year the SEC brings hundreds of civil enforcement actions against individuals and companies that break the securities laws. Typical infractions include insider trading, accounting fraud, and providing false or misleading information about securities and the companies that issue them.

(b) The main purposes of these laws can be reduced to two common-sense notions:

- Companies publicly offering securities for investment dollars must tell the public the truth about their businesses, the securities they are selling, and the risks involved in investing.

- People who sell and trade securities—brokers, dealers, and exchanges—must treat investors fairly and honestly, putting investors' interests first.

(c) President Franklin Delano Roosevelt appointed Joseph P. Kennedy, President John F. Kennedy's father, to serve as the first Chairman of the SEC.

BYP 13-4 EXPLORING THE WEB

Answers will vary depending on the company chosen by the student.

BYP 13-5 DECISION MAKING ACROSS THE ORGANIZATION

(a)

CARPINO COMPANY
Statement of Cash Flows
For the Year Ended January 31, 2011

Cash flows from operating activities		
Net loss		$ (30,000)*
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation expense	$ 55,000	
Gain from sale of investment	(5,000)	50,000
Net cash provided by operating activities		20,000
Cash flows from investing activities		
Sale of investment	80,000	
Purchase of investment	(75,000)	
Purchase of fixtures and equipment	(330,000)	
Net cash used by investing activities		(325,000)
Cash flows from financing activities		
Sale of ordinary shares	420,000	
Purchase of ordinary shares	(10,000)	
Net cash provided by financing activities		410,000
Net increase in cash		105,000
Cash at beginning of period		140,000
Cash at end of period		$245,000

Note X: Non-cash investing and financing activities

Issuance of note for truck	$ 20,000

BYP 13-5 (Continued)

*Computation of net income (loss)

Sales of merchandise		$380,000
Interest revenue		6,000
Gain on sale of investment ($80,000 – $75,000)		5,000
Total revenues and gains		391,000
Merchandise purchased	$258,000	
Operating expenses ($160,000 – $55,000)	105,000	
Depreciation	55,000	
Interest expense	3,000	
Total expenses		421,000
Net loss		$ (30,000)

(b) From the information given, it appears that from an operating standpoint, Carpino Company did not have a superb first year, having suffered a $30,000 net loss. Lisa is correct; the statement of cash flows is not prepared in correct form. The correct format classifies cash flows from three activities—operating, investing, and financing; and it also presents significant non-cash investing and financing activities in a separate schedule. Lisa is wrong, however, about the actual increase in cash not being $105,000; $105,000 is the correct increase in cash.

BYP 13-6 COMMUNICATION ACTIVITY

MEMO

To: Kyle Benson

From: Student

Re: Statement of cash flows

The statement of cash flows provides information about the cash receipts and cash payments of a firm, classified as operating, investing, and financing activities. The operating activities section of the company's statement of cash flows shows that cash increased by $172,000 as a result of transactions which affected net income. This amount is computed by adjusting net income for those items which affect net income, but do not affect cash, such as sales on account which remain uncollected at year-end.

The investing activities section of the statement reports cash flows resulting from changes in investments and other non-current assets. The company had a cash outflow from investing activities due to purchases of buildings and equipment.

The financing activities section of the statement reports cash flows resulting from changes in non-current liabilities and equity. The company had a cash inflow from financing activities due to the issuance of ordinary shares and an outflow due to the payment of cash dividends.

If you have any further questions, please do not hesitate to contact me.

BYP 13-7 ETHICS CASE

(a) The stakeholders in this situation are:
Willie Morton, president of Tappit Company.
Robert Jennings, controller.
The Board of Directors.
The shareholders of Tappit Company.

(b) The president's statement, "We must get that amount above $1 million," puts undue pressure on the controller. This statement along with his statement, "I know you won't let me down, Robert," encourages Robert to do something unethical.

Controller Robert Jennings' reclassification (intentional misclassification) of a cash inflow from a long-term note (financing activity) issuance to an "increase in payables" (operating activity) is inappropriate and unethical.

(c) It is unlikely that any board members (other than board members who are also officers of the company) would discover the misclassification. Board members generally do not have detailed enough knowledge of their company's transactions to detect this misstatement. It is possible that an officer of the bank that made the loan would detect the misclassification upon close reading of Tappit Company's statement of cash flows. It is also possible that close scrutiny of the statement of financial position showing an increase in notes payable (long-term debt) would reveal that there is no comparable financing activity item (proceeds from note payable) in the statement of cash flows.

CHAPTER 14

Financial Statement Analysis

ASSIGNMENT CLASSIFICATION TABLE

Study Objectives		Questions	Brief Exercises	Do It!	Exercises	Problems
1.	Discuss the need for comparative analysis.	1, 2, 3, 5	1			
2.	Identify the tools of financial statement analysis.	2, 3, 5, 6	2			
3.	Explain and apply horizontal analysis.	3, 4, 5	2, 3, 5, 6, 7	1, 4	1, 3, 4	
4.	Describe and apply vertical analysis.	3, 4, 5	2, 4, 8	4	2, 3, 4	1
5.	Identify and compute ratios used in analyzing a firm's liquidity, profitability, and solvency.	5, 6, 7, 8, 9, 10, 11,12, 13, 14, 15, 16, 17, 18, 19	2, 9, 10, 11, 12, 13	2, 4	5, 6, 7, 8, 9, 10, 11	1, 2, 3, 4, 5, 6, 7
6.	Understand the concept of earning power, and how discontinued operations are presented.	20, 21, 22	14, 15	3, 4	12, 13	8, 9
7.	Understand the concept of quality of earnings.	23		4		

ASSIGNMENT CHARACTERISTICS TABLE

Problem Number	Description	Difficulty Level	Time Allotted (min.)
1	Prepare vertical analysis and comment on profitability.	Simple	20–30
2	Compute ratios from statement of financial position and income statement.	Simple	20–30
3	Perform ratio analysis, and evaluate financial position and operating results.	Simple	20–30
4	Compute ratios, and comment on overall liquidity and profitability.	Moderate	30–40
5	Compute selected ratios, and compare liquidity, profitability, and solvency for two companies.	Moderate	50–60
6	Compute numerous ratios.	Simple	30–40
7	Compute missing information given a set of ratios.	Complex	30–40
8	Prepare income statement with discontinued operations.	Moderate	30–40
9	Prepare income statement with non-typical items.	Moderate	30–40

WEYGANDT IFRS 1E
CHAPTER 14
FINANCIAL STATEMENT ANALYSIS

Number	SO	BT	Difficulty	Time (min.)
BE1	1	C	Moderate	10–12
BE2	2–5	K, AP	Simple	8–10
BE3	3	AP	Simple	6–8
BE4	4	AP	Simple	6–8
BE5	3	AP	Simple	4–6
BE6	3	AP	Simple	4–6
BE7	3	AP	Simple	4–6
BE8	4	AP	Simple	5–7
BE9	5	AP	Simple	4–6
BE10	5	AP	Simple	3–5
BE11	5	AN	Simple	6–8
BE12	5	AN	Moderate	6–8
BE13	5	AN	Moderate	6–8
BE14	6	AP	Simple	4–6
BE15	6	AP	Simple	3–5
DI1	3	AP	Simple	6–8
DI2	5	AP	Simple	10–12
DI3	6	AP	Simple	6–8
DI4	3–7	C	Simple	3–5
EX1	3	AP	Simple	10–12
EX2	4	AP	Simple	10–12
EX3	3, 4	AP	Simple	12–15
EX4	3, 4	AP	Simple	10–12
EX5	5	AN	Simple	8–10
EX6	5	AP	Simple	8–10
EX7	5	AP	Simple	6–8
EX8	5	AP	Simple	6–8
EX9	5	AP	Simple	6–8
EX10	5	AP	Moderate	8–10

Number	SO	BT	Difficulty	Time (min.)
EX11	5	AP	Simple	10–12
EX12	6	AP	Moderate	8–10
EX13	6	AP	Simple	6–8
P1	4, 5	AN	Simple	20–30
P2	5	AP	Simple	20–30
P3	5	AP, AN	Simple	20–30
P4	5	AN	Moderate	30–40
P5	5	AP, AN	Moderate	50–60
P6	5	AP	Simple	30–40
P7	5	AN	Complex	30–40
P8	6	AP	Moderate	30–40
P9	6	AP	Moderate	30–40
BYP1	3, 5	AN, E	Moderate	20–25
BYP2	3, 5	AN, E	Simple	15–20
BYP3	5	C, E	Moderate	15–20
BYP4	6	AP	Moderate	20–25
BYP5	1, 7	C	Simple	15–20
BYP6	5	E	Simple	10–15

BLOOM'S TAXONOMY TABLE

Correlation Chart between Bloom's Taxonomy, Study Objectives and End-of-Chapter Exercises and Problems

Study Objective	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
1. Discuss the need for comparative analysis.		Q14-1 Q14-2 Q14-3 Q14-5 BE14-1				
2. Identify the tools of financial statement analysis.	Q14-6 BE14-2	Q14-2 Q14-3 Q14-5	BE14-2			
3. Explain and apply horizontal analysis.	BE14-2	Q14-3 Q14-5 DI14-4	Q14-4 BE14-2 BE14-3 BE14-5 BE14-6 BE14-7 DI14-1 E14-1 E14-3 E14-4			
4. Describe and apply vertical analysis.	BE14-2	Q14-3 Q14-5 DI14-4	Q14-4 BE14-2 BE14-4 BE14-8 E14-2 E14-3 E14-4	P14-1		
5. Identify and compute ratios used in analyzing a firm's liquidity, profitability, and solvency.	Q14-6 Q14-8 BE14-2	Q14-5 Q14-7 Q14-9 Q14-10 Q14-11 Q14-12 Q14-13 Q14-14 Q14-15 Q14-16 Q14-17 Q14-18 DI14-4	Q14-19 BE14-2 BE14-9 BE14-10 DI14-2 E14-6 E14-7 E14-8 E14-9 E14-10 E14-11 P14-2 P14-3 P14-5 P14-6	BE14-11 BE14-12 BE14-13 E14-5 P14-1 P14-3 P14-4 P14-5 P14-7		
6. Understand the concept of earning power, and how discontinued operations are presented.		Q14-20 Q14-21 Q14-22 DI14-4	BE14-14 BE14-15 DI14-3 E14-12 E14-13 P14-8 P14-9			
7. Understand the concept of quality of earnings.		Q14-23 DI14-4				
Broadening Your Perspective		Decision Making Across the Organization Communication		Financial Reporting Comp. Analysis		Financial Reporting Comp. Analysis Decision Making Across the Organization Ethics Case

ANSWERS TO QUESTIONS

1. (a) Juan is not correct. There are three characteristics: liquidity, profitability, and solvency.
(b) The three parties are not primarily interested in the same characteristics of a company. Short-term creditors are primarily interested in the liquidity of the company. In contrast, long-term creditors and shareholders are primarily interested in the profitability and solvency of the company.

2. (a) Comparison of financial information can be made on an intracompany basis, an intercompany basis, and an industry average basis (or norms).
(1) An **intracompany basis** compares an item or financial relationship within a company in the current year with the same item or relationship in one or more prior years.
(2) The **industry averages basis** compares an item or financial relationship of a company with industry averages (or norms) published by financial rating services.
(3) An **intercompany basis** compares an item or financial relationship of one company with the same item or relationship in one or more competing companies.
(b) The **intracompany basis** of comparison is useful in detecting changes in financial relationships and significant trends within a company.

The **industry averages basis** provides information as to a company's relative performance within the industry.

The **intercompany basis** of comparison provides insight into a company's competitive position.

3. Horizontal analysis (also called trend analysis) measures the dollar and percentage increase or decrease of an item over a period of time. In this approach, the amount of the item on one statement is compared with the amount of that same item on one or more earlier statements. Vertical analysis (also called common-size analysis) expresses each item within a financial statement in terms of a percent of a base amount.

4. (a) €360,000 X 1.245 = €448,200, 2012 net income.
(b) €360,000 ÷ .06 = €6,000,000, 2011 revenue.

5. A ratio expresses the mathematical relationship between one quantity and another. The relationship is expressed in terms of either a percentage (200%), a rate (2 times), or a simple proportion (2:1). Ratios can provide clues to underlying conditions that may not be apparent from individual financial statement components. The ratio is more meaningful when compared to the same ratio in earlier periods or to competitors' ratios or to industry ratios.

6. (a) Liquidity ratios: Current ratio, acid-test ratio, receivables turnover, and inventory turnover.
(b) Solvency ratios: Debt to total assets and times interest earned.

7. Cindy is correct. A single ratio by itself may not be very meaningful and is best interpreted by comparison with: (1) past ratios of the same company, (2) ratios of other companies, or (3) industry norms or predetermined standards. In addition, other ratios of the company are necessary to determine overall financial well-being.

8. (a) Liquidity ratios measure the short-term ability of the company to pay its maturing obligations and to meet unexpected needs for cash.
(b) Profitability ratios measure the income or operating success of a company for a given period of time.
(c) Solvency ratios measure the ability of the company to survive over a long period of time.

9. The current ratio relates current assets to current liabilities. The acid-test ratio relates cash, short-term investments, and net receivables to current liabilities. The current ratio includes inventory and prepaid expenses while the acid-test ratio excludes these. The acid-test ratio provides additional information about short-term liquidity and is an important complement to the current ratio.

10. Donte Company does not necessarily have a problem. The receivables turnover ratio can be misleading in that some companies encourage credit and revolving charge sales and slow collections in order to earn a healthy return on the outstanding receivables in the form of high rates of interest.

11. (a) Asset turnover.
(b) Inventory turnover.
(c) Return on ordinary shareholders' equity.
(d) Times interest earned.

12. The price earnings (P/E) ratio is a reflection of investors' assessments of a company's future earnings. In this question, investors favor Microsoft because it has the higher P/E ratio. The investors feel that Microsoft will be able to generate even higher future earnings and so the investors are willing to pay more for the shares.

13. The payout ratio is cash dividends divided by net income. In a growth company, the payout ratio is often low because the company is reinvesting earnings in the business.

14. (a) The increase in profit margin is good news because it means that a greater percentage of net sales is going towards income.
(b) The decrease in inventory turnover signals bad news because it is taking the company longer to sell the inventory and consequently there is a greater chance of inventory obsolescence.
(c) An increase in the current ratio signals good news because the company improved its ability to meet maturing short-term obligations.
(d) The earnings per share ratio is a deceptive ratio. The decrease might be bad news to the company because it could mean a decrease in net income. If there is an increase in shareholders' investment (as a result of issuing additional shares) and a decrease in EPS, then this means that the additional investment is earning a lower return (as compared to the return on ordinary shareholders' equity before the additional investment). Generally, this is undesirable.
(e) The increase in the price-earnings ratio is generally good news because it means that the market price per ordinary share has increased and investors are willing to pay that higher price per share. An increase in the P/E ratio is good news for investors who own the share and don't want to buy any more. It is bad news for investors who want to buy (or buy more of) the shares.
(f) The increase in the debt to total assets ratio is bad news because it means that the company has increased its obligations to creditors and has lowered its equity "buffer."
(g) The decrease in the times interest earned ratio is bad news because it means that the company's ability to meet interest payments as they come due has weakened.

15. $$\underset{(7.6\%)}{\text{Return on assets}} = \frac{\text{Net Income}}{\text{Average Assets}}$$

$$\underset{(12.8\%)}{\text{Return on ordinary shareholders' equity}} = \frac{\text{Net Income} - \text{Preference Dividends}}{\text{Average Ordinary Shareholders' Equity}}$$

The difference between the two rates can be explained by looking at the denominator value and by remembering the basic accounting equation, A = L + E. The asset value will clearly be the larger of the two denominator values; therefore, it will also give the smaller return.

16. (a) The times interest earned ratio, which is an indication of the company's ability to meet interest payments, and the debt to total assets ratio, which indicates the company's ability to withstand losses without impairing the interests of creditors.

(b) The current ratio and the acid-test ratio, which indicate a company's liquidity and short-term debt-paying ability.

(c) The earnings per ordinary share and the return on ordinary shareholders' equity, both of which indicate the earning power of the investment.

17. Earnings per share means earnings per ordinary share. Preference dividends are subtracted from net income in computing EPS in order to obtain income available to ordinary shareholders.

18. (a) Trading on the equity means that the company has borrowed money at a lower rate of interest than it is able to earn by using the borrowed money. Simply stated, it is using money supplied by nonowners to increase the return to the owners.

(b) A comparison of the return on total assets with the rate of interest paid for borrowed money indicates the profitability of trading on the equity.

19. $$\frac{\text{Net income} - \text{Preference dividends}}{\text{Weighted average ordinary shares outstanding}} = \text{Earnings per share}$$

$$\frac{\text{R\$160,000} - \text{R\$40,000}}{50{,}000} = \text{R\$2.40}$$

EPS of R$2.40 is high relative to what? Is it high relative to last year's EPS? The president may be comparing the EPS of R$2.40 to the market price of the company's shares.

20. Discontinued operations refers to the disposal of a significant component of the business such as the stopping of an entire activity or eliminating a major class of customers. It is important to report discontinued operations separately from continuing operations because the discontinued component will not affect future income statements.

21. EPS on income from continuing operations usually is more relevant to an investment decision than EPS on net income. Income from continuing operations represents the results of continuing and ordinary business activity. It is therefore a better basis for predicting future operating results than an EPS figure which includes the effect of discontinued operations that are not expected to recur again in the foreseeable future.

22. When comparing EPS trends, discontinued operations should be omitted since they are not reflective of the normal level of income to be obtained in the future. In this example, the trend is unfavorable because EPS, exclusive of discontinued operations, has decreased from $3.20 to $2.99.

23. (1) Use of alternative accounting methods. Variations among companies in the application of accounting rules may hamper comparability.

(2) Use of pro forma income measures that do not follow IFRS. Pro forma income is calculated by excluding items that the company believes are unusual or nonrecurring. It is often difficult to determine what was included and excluded.

(3) Improper revenue and expense recognition. Many high-profile cases of inappropriate accounting involve recording items in the wrong period.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 14-1

Dear Uncle Frank,

It was so good to hear from you! I hope you and Aunt Irene are still enjoying your new house.

You asked some interesting questions. They relate very well to the material that we are studying now in my financial accounting class. You said you heard that different users of financial statements are interested in different characteristics of companies. This is true. A short-term creditor, such as a bank, is interested in the company's liquidity, or ability to pay obligations as they become due. The liquidity of a borrower is extremely important in evaluating the safety of a loan. A long-term creditor, such as a bondholder, would be interested in solvency, the company's ability to survive over a long period of time. A long-term creditor would also be interested in profitability. They are interested in the likelihood that the company will survive over the life of the debt and be able to meet interest payments. Shareholders are also interested in profitability, and in the solvency of the company. They want to assess the likelihood of dividends and the growth potential of the shares.

It is important to compare different financial statement elements to other items. The amount of a financial statement element such as cash does not have much meaning unless it is compared to something else. Comparisons can be done on an intracompany basis. This basis compares an item or financial relationship within a company for the current year to one or more previous years. Intracompany comparisons are useful in detecting changes in financial relationships and significant trends. Comparisons can also be done with industry averages. This basis compares an item or financial relationship with industry averages or norms. Comparisons with industry averages provide information as to a company's relative performance within the industry. Finally, comparisons can be done on an intercompany basis. This basis compares an item or financial relationship with the same item or relationship in one or more competing companies. Intercompany comparisons are useful in determining a company's competitive position.

I hope this answers your questions. If it does not, or you have more questions, please write me again or call. We could even meet for lunch sometime; it would be great to see you!

Love,

Your niece (or nephew)

BRIEF EXERCISE 14-2

(a) The three tools of financial statement analysis are horizontal analysis, vertical analysis, and ratio analysis. Horizontal analysis evaluates a series of financial statement data over a period of time. Vertical analysis evaluates financial statement data by expressing each item in a financial statement as a percent of a base amount. Ratio analysis expresses the relationship among selected items of financial statement data.

(b) Horizontal Analysis

	2010	2011	2012
Current assets	100%	115%	120%

(115 = $230,000/$200,000; 120 = $240,000/$200,000)

Vertical Analysis

	2010	2011	2012
Current assets*	40%	38%	39%

*as a percentage of total assets
(40% = $200,000/$500,000; 38% = $230,000/$600,000;
39% = $240,000/$620,000)

Ratio Analysis

	2010	2011	2012
Current ratio	1.25:1	1.37:1	1.30:1

(1.25 = $200,000/$160,000; 1.37 = $230,000/$168,000;
1.30 = $240,000/$184,000)

BRIEF EXERCISE 14-3

Horizontal analysis:

			Increase or (Decrease)	
	Dec. 31, 2012	Dec. 31, 2011	Amount	Percentage
Accounts receivable	€ 520,000	€ 400,000	€120,000	30%
Inventory	€ 840,000	€ 600,000	€240,000	40%
Total assets	€3,000,000	€2,500,000	€500,000	20%

$\frac{120,000}{400,000} = .30$ $\frac{240,000}{600,000} = .40$ $\frac{500,000}{2,500,000} = .20$

BRIEF EXERCISE 14-4

Vertical analysis:

	Dec. 31, 2012		Dec. 31, 2011	
	Amount	Percentage*	Amount	Percentage**
Accounts receivable	€ 520,000	17.3%	€ 400,000	16.0%
Inventory	€ 840,000	28.0%	€ 600,000	24.0%
Total assets	€3,000,000	100%	€2,500,000	100%

$* \frac{520,000}{3,000,000} = .173$ $** \frac{400,000}{2,500,000} = .16$

$* \frac{840,000}{3,000,000} = .28$ $** \frac{600,000}{2,500,000} = .24$

BRIEF EXERCISE 14-5

	2012	2011	2010
Net income	$522,000	$450,000	$500,000

	Increase or (Decrease)	
	Amount	Percentage
(a) 2010–2011	(50,000)	(10%)
(b) 2011–2012	72,000	16%

$\frac{50,000}{500,000} = .10$ $\frac{72,000}{450,000} = .16$

BRIEF EXERCISE 14-6

	2012	2011	Increase
Net income	$585,000	X	30%

$$.30 = \frac{585,000 - X}{X}$$

$$.30X = 585,000 - X$$

BRIEF EXERCISE 14-6 (Continued)

1.30X = 585,000

X = 450,000

2010 Net income = $450,000

BRIEF EXERCISE 14-7

Comparing the percentages presented results in the following conclusions: The net income for Epstein increased in 2011 because of the combination of an increase in sales and a decrease in both cost of goods sold and expenses. However, the reverse was true in 2012 as sales decreased while both cost of goods sold and expenses increased. This resulted in a decrease in net income.

BRIEF EXERCISE 14-8

	2012	2011	2010
Sales	100.0	100.0	100.0
Cost of goods sold	59.2	62.4	64.5
Expenses	25.0	25.6	27.5
Net income	15.8	12.0	8.0

Net income as a percent of sales for Charles increased over the three-year period because cost of goods sold and expenses both decreased as a percent of sales every year.

BRIEF EXERCISE 14-9

(a) Working capital = Current assets – Current liabilities

Current assets	£45,918,000
Current liabilities	40,644,000
Working capital	£ 5,274,000

BRIEF EXERCISE 14-9 (Continued)

(b) Current ratio:

$$\frac{\text{Current assets}}{\text{Current liabilities}} = \frac{£45{,}918{,}000}{£40{,}644{,}000}$$

$$= \underline{\underline{1.13:1}}$$

(c) Acid-test ratio:

$$\frac{\text{Cash + Short-term investments + Receivables (net)}}{\text{Current liabilities}} = \frac{£8{,}041{,}000 + £4{,}947{,}000 + £12{,}545{,}000}{£40{,}644{,}000}$$

$$= \frac{£25{,}533{,}000}{£40{,}644{,}000}$$

$$= \underline{\underline{.63:1}}$$

BRIEF EXERCISE 14-10

(a) Asset turnover $= \dfrac{\text{Net sales}}{\text{Average assets}}$

$$= \frac{\$80{,}000{,}000}{\dfrac{\$14{,}000{,}000 + \$18{,}000{,}000}{2}}$$

$$= \underline{\underline{5 \text{ times}}}$$

(b) Profit margin $= \dfrac{\text{Net income}}{\text{Net sales}}$

$$= \frac{\$11{,}440{,}000}{\$80{,}000{,}000}$$

$$= \underline{\underline{14.3\%}}$$

BRIEF EXERCISE 14-11

(a) Receivables turnover = $\frac{\text{Net credit sales}}{\text{Average net receivables}}$

	2012	2011
1.	$\frac{\$3{,}960{,}000}{\$535{,}000^*}$ = 7.4 times	$\frac{\$3{,}100{,}000}{\$500{,}000^{**}}$ = 6.2 times
	*($520,000 + $550,000) ÷ 2	**($480,000 + $520,000) ÷ 2

2. Average collection period

$\frac{365}{7.4}$ = 49.3 days $\qquad$ $\frac{365}{6.2}$ = 58.9 days

(b) Morino Company should be pleased with the effectiveness of its credit and collection policies. The company has decreased the average collection period by 9.6 days and the collection period of approximately 49 days is well within the 60 days allowed in the credit terms.

BRIEF EXERCISE 14-12

(a) Inventory turnover = $\frac{\text{Cost of goods sold}}{\text{Average inventory}}$

1.

2012	2011
$\frac{TL4{,}300{,}000}{\left(\frac{TL980{,}000 + TL1{,}020{,}000}{2}\right)}$ = 4.3 times	$\frac{TL4{,}541{,}000}{\left(\frac{TL860{,}000 + TL980{,}000}{2}\right)}$ = 4.9 times

	2012	2011
Beginning inventory	TL 980,000	TL 860,000
Purchases	4,340,000	4,661,000
Goods available for sale	5,320,000	5,521,000
Ending inventory	1,020,000	980,000
Cost of goods sold	TL4,300,000	TL4,541,000

2. Days in inventory

$\frac{365}{4.3}$ = 84.9 days $\qquad$ $\frac{365}{4.9}$ = 74.5 days

BRIEF EXERCISE 14-12 (Continued)

(b) Management should be concerned with the fact that inventory is moving slower in 2012 than it did in 2011. The decrease in the turnover could be because of poor pricing decisions or because the company is stuck with obsolete inventory.

BRIEF EXERCISE 14-13

$$\text{Payout ratio} = \frac{\text{Cash dividends}}{\text{Net income}}$$

$$.20 = \frac{X}{\$66{,}000}$$

$$X = \$66{,}000\ (.20) = \$13{,}200$$

$$\text{Cash dividends} = \underline{\underline{\$13{,}200}}$$

$$\text{Return on assets} = \frac{\text{Net income}}{\text{Average assets}}$$

$$.15 = \frac{\$66{,}000}{X}$$

$$.15X = \$66{,}000$$

$$X = \frac{\$66{,}000}{.15}$$

$$X = \$440{,}000$$

$$\text{Average assets} = \underline{\underline{\$440{,}000}}$$

BRIEF EXERCISE 14-14

MING CORPORATION
Partial Income Statement

Income before income taxes		$400,000
Income tax expense ($400,000 X 30%)		120,000
Income from continuing operations		280,000
Discontinued operations		
Income from operations of retail division, net of $3,000 tax ($10,000 X 30%)	$ 7,000	
Loss on disposal of retail division, net of $24,000 tax saving ($80,000 X 30%)	56,000	49,000
Net income		$231,000

BRIEF EXERCISE 14-15

REEVES CORPORATION
Partial Income Statement

Loss from operations of Mexico facility, net of €90,000 tax saving (€300,000 X 30%)	€210,000	
Loss on disposal of Mexico facility, net of €36,000 tax saving (€120,000 X 30%)	84,000	€294,000

SOLUTIONS FOR DO IT! REVIEW EXERCISES

DO IT! 14-1

	Increase (Decrease) in 2012	
	Amount	Percent
Plant assets	$ 41,000	5.3% [($ 821,000 – $ 780,000) ÷ $ 780,000]
Current assets	(21,000)	(9.5)% [($ 199,000 – $ 220,000) ÷ $ 220,000]
Total assets	$ 20,000	2.0% [($1,020,000 – $1,000,000) ÷ $1,000,000]

DO IT! 14-2

		2011	2010
(a)	Current ratio:		
	€1,380 ÷ €900 =	1.53:1	
	€1,310 ÷ €790 =		1.66:1
(b)	Inventory turnover:		
	€970/[(€460 + €390) ÷ 2)] =	2.28 times	
	€890/[(€390 + €340) ÷ 2)]=		2.44 times
(c)	Profit margin ratio:		
	€252 ÷ €3,800 =	6.6%	
	€ 88 ÷ €3,460 =		2.5%
(d)	Return on assets:		
	€252/[(€2,340 + €2,210) ÷ 2)] =	11.1%	
	€ 88/[(€2,210 + €1,900) ÷ 2)] =		4.3%
(e)	Return on ordinary shareholders' equity:		
	€252/[(€1,030 + €1,040) ÷ 2)] =	24.3%	
	€ 88/[(€1,040 + € 900) ÷ 2)] =		9.1%
(f)	Debt to total assets ratio:		
	€1,310 ÷ €2,340 =	56.0%	
	€1,170 ÷ €2,210 =		52.9%
(g)	Times interest earned:		
	(€252 + €168 + €10) ÷ €10 =	43 times	
	(€ 88 + €132 + €20) ÷ €20 =		12 times

DO IT! 14-3

SUPPLY CORPORATION
Income Statement (Partial)

Income before income taxes		$500,000
Income tax expense		200,000
Income from continuing operations		300,000
Discontinued operations		
Loss from operations of music division, net of $24,000 tax saving	$36,000	
Gain from disposal of music division, net of $16,000, taxes	24,000	12,000
Net income		$288,000

DO IT! 14-4

1. b. Current ratio: A measure used to evaluate a company's liquidity.
2. d. Pro forma income: Usually excludes items that a company thinks are unusual or nonrecurring.
3. a. Quality of earnings: Indicates the level of full and transparent information provided to users of the financial statements.
4. e. Discontinued operations: The disposal of a significant segment of a business.
5. c. Horizontal analysis: Determines increases or decreases in a series of financial statement data.
6. f. Comprehensive income: Includes all changes in shareholders' equity during a period except those resulting from investments by shareholders and distributions to shareholders.

SOLUTIONS TO EXERCISES

EXERCISE 14-1

BLEVINS INC.
Condensed Statements of Financial Position
December 31

			Increase or (Decrease)	
	2012	2011	Amount	Percentage
Assets				
Plant assets (net)	$396,000	$330,000	$66,000	20.0%
Current assets	125,000	100,000	25,000	25.0%
Total assets	$521,000	$430,000	$91,000	21.2%
Equity				
Share capital—ordinary, $1 par	$161,000	$115,000	$ 46,000	40.0%
Retained earnings	136,000	150,000	(14,000)	(9.3%)
Total equity	297,000	265,000	32,000	12.1%
Liabilities				
Noncurrent liabilities	133,000	95,000	38,000	40.0%
Current liabilities	91,000	70,000	21,000	30.0%
Total liabilities	224,000	165,000	59,000	35.8%
Total equity and liabilities	$521,000	$430,000	$91,000	21.2%

EXERCISE 14-2

GALLUP CORPORATION
Condensed Income Statements
For the Years Ended December 31

	2012		2011	
	Amount	Percent	Amount	Percent
Sales	£750,000	100.0%	£600,000	100.0%
Cost of goods sold	465,000	62.0%	390,000	65.0%
Gross profit	285,000	38.0%	210,000	35.0%
Selling expenses	120,000	16.0%	72,000	12.0%
Administrative expenses	60,000	8.0%	54,000	9.0%
Total operating expenses	180,000	24.0%	126,000	21.0%
Income before income taxes	105,000	14.0%	84,000	14.0%
Income tax expense	33,000	4.4%	24,000	4.0%
Net income	£ 72,000	9.6%	£ 60,000	10.0%

EXERCISE 14-3

(a)

CONARD CORPORATION
Condensed Statements of Financial Position
December 31

	2012	2011	Increase (Decrease)	Percentage Change from 2011
Assets				
Intangibles	$ 27,000	$ 40,000	$(13,000)	(32.5%)
Property, plant & equipment (net)	99,000	90,000	9,000	10.0%
Current assets	74,000	80,000	(6,000)	(7.5%)
Total assets	$200,000	$210,000	$(10,000)	(4.8%)

CONARD CORPORATION
Condensed Statements of Financial Position (Continued)
December 31

	2012	2011	Increase (Decrease)	Percentage Change from 2010
Equity and liabilities				
Shareholders' equity	$ 15,000	$ 12,000	$ 3,000	25.0%
Noncurrent liabilities	143,000	150,000	(7,000)	(4.7%)
Current liabilities	42,000	48,000	(6,000)	(12.5%)
Total equity and liabilities	$200,000	$210,000	$(10,000)	(4.8%)

(b)

CONARD CORPORATION
Condensed Statements of Financial Position
December 31, 2012

	Amount	Percent
Assets		
Intangibles	$ 27,000	13.5%
Property, plant, and equipment (net)	99,000	49.5%
Current assets	74,000	37.0%
Total assets	$200,000	100.0%
Equity and liabilities		
Shareholders' equity	$ 15,000	7.5%
Noncurrent liabilities	143,000	71.5%
Current liabilities	42,000	21.0%
Total equity and liabilities	$200,000	100.0%

EXERCISE 14-4

(a)

HENDI CORPORATION
Condensed Income Statements
For the Years Ended December 31

	2012	2011	Increase or (Decrease) During 2010 Amount	Percentage
Net sales	TL600,000	TL500,000	TL100,000	20.0%
Cost of goods sold	483,000	420,000	63,000	15.0%
Gross profit	117,000	80,000	37,000	46.3%
Operating expenses	57,200	44,000	13,200	30.0%
Net income	TL 59,800	TL 36,000	TL 23,800	66.1%

(b)

HENDI CORPORATION
Condensed Income Statements
For the Years Ended December 31

	2012		2011	
	Amount	Percent	Amount	Percent
Net sales	TL600,000	100.0%	TL500,000	100.0%
Cost of goods sold	483,000	80.5%	420,000	84.0%
Gross profit	117,000	19.5%	80,000	16.0%
Operating expenses	57,200	9.5%	44,000	8.8%
Net income	TL 59,800	10.0%	TL 36,000	7.2%

EXERCISE 14-5

(a) Current ratio = 2.0:1 ($3,217 ÷ $1,601)
Acid-test ratio = 1.26:1 ($2,014 ÷ $1,601)
Receivables turnover = 4.4 times ($8,272 ÷ $1,865)*
Inventory turnover = 5.8 times ($5,417 ÷ $928)**

*($1,942 + $1,788) ÷ 2
**(900 + 956) ÷ 2

EXERCISE 14-5 (Continued)

(b)

Ratio	Nordstrom	Park Street	Industry
Current	2.0:1	2.02:1	1.06:1
Acid-test	1.26:1	0.87:1	0.29:1
Receivables turnover	4.4	57.0	28.2
Inventory turnover	5.8	3.5	7.0

Nordstrom is slightly below Park Street for the current ratio and significantly below for the receivables turnover. Nordstrom is better than Park Street for the acid-test and inventory turnover ratios.

Nordstrom is better than the industry average for the current and acid test ratios but below the industry average for the receivables turnover and inventory turnover ratios.

EXERCISE 14-6

(a) Current ratio as of February 1, 2011 = 2.6:1 (R$130,000 ÷ R$50,000).

Feb.	3	2.6:1	No change in total current assets or liabilities.
	7	2.0:1	(R$102,000 ÷ R$50,000).
	11	2.0:1	No change in total current assets or liabilities.
	14	2.4:1	(R$90,000 ÷ R$38,000).
	18	2.1:1	(R$90,000 ÷ R$43,000).

(b) Acid-test ratio as of February 1, 2011 = 2.3:1 (R$113,000* ÷ R$50,000).

*R$130,000 – R$15,000 – R$2,000

Feb.	3	2.3:1	No change in total quick assets or current liabilities.
	7	1.7:1	(R$85,000 ÷ R$50,000).
	11	1.6:1	(R$82,000 ÷ R$50,000).
	14	1.8:1	(R$70,000 ÷ R$38,000).
	18	1.6:1	(R$70,000 ÷ R$43,000).

EXERCISE 14-7

(a) $\dfrac{\$145{,}000}{\$50{,}000} = 2.9{:}1.$

(b) $\dfrac{\$85{,}000}{\$50{,}000} = 1.7{:}1.$

(c) $\dfrac{\$390{,}000}{\$65{,}000\ (1)} = 6.0$ times.

(d) $\dfrac{\$198{,}000}{\$55{,}000\ (2)} = 3.6$ times.

(1) $\dfrac{\$70{,}000 + \$60{,}000}{2}$

(2) $\dfrac{\$60{,}000 + \$50{,}000}{2}$

EXERCISE 14-8

(a) Profit margin $\dfrac{£50{,}000}{£760{,}000} = 6.6\%.$

(b) Asset turnover $\dfrac{£760{,}000}{\left[\dfrac{£500{,}000 + £580{,}000}{2}\right]} = 1.4$ times.

(c) Return on assets $\dfrac{£50{,}000}{£540{,}000} = 9.3\%.$

(d) Return on ordinary shareholders' equity $\dfrac{£50{,}000}{\left[\dfrac{£325{,}000 + £430{,}000}{2}\right]} = 13.2\%.$

EXERCISE 14-9

(a) $\dfrac{\$65{,}000 - \$5{,}000}{30{,}000 \text{ shares}} = \$2.00.$

(b) $\dfrac{\$13.00}{\$2.00} = 6.5 \text{ times.}$

(c) $\dfrac{\$26{,}000}{\$65{,}000} = 40\%.$

(d) $\dfrac{\$65{,}000 + \$16{,}000 + \$24{,}000}{\$16{,}000} = \dfrac{\$105{,}000}{\$16{,}000} = 6.6 \text{ times.}$

EXERCISE 14-10

(a) Inventory turnover $= 3.5 = \dfrac{\text{Cost of goods sold}}{\left[\dfrac{€200{,}000 + €180{,}000}{2}\right]}$

3.5 X €190,000 = Cost of goods sold
Cost of goods sold = €665,000.

(b) Receivables turnover $= 8.8 = \dfrac{\text{Net sales (credit)}}{\left[\dfrac{€72{,}500 + €126{,}000}{2}\right]}$

8.8 X €99,250 = Net sales (credit) = €873,400.

(c) Return on ordinary shareholders' equity = 24% =

$$\frac{\text{Net income}}{\left[\dfrac{€400{,}000 + €113{,}500 + €400{,}000 + €101{,}000}{2}\right]}$$

.24 X €507,250 = Net income = €121,740.

EXERCISE 14-10 (Continued)

(d) Return on assets = 20% = $\dfrac{\text{€121,740 [see (c) above]}}{\text{Average assets}}$

$$\text{Average assets} = \frac{\text{€121,740}}{.20} = \text{€608,700}$$

$$\frac{\text{Total assets (Dec. 31, 2011) + €605,000}}{2} = \text{€608,700}$$

Total assets (Dec. 31, 2011) = (€608,700 X 2) – €605,000 = €612,400.

EXERCISE 14-11

(a) ($4,300 + $21,200+ $10,000)/$12,370 = 2.87:1

(b) ($4,300 + $21,200)/$12,370 = 2.06:1

(c) $100,000/[($21,200 + $23,400)/2] = 4.48 times

(d) $60,000/[($10,000 + $7,000)/2] = 7.06 times

(e) $15,000/$100,000 = 15%

(f) $100,000/[($110,500 + $120,100)/2] = .87

(g) $15,000/[($110,500 + $120,100)/2] = 13%

(h) $15,000/[($98,130* + $89,000**)/2] = 16%

(i) $12,370/$110,500 = 11.2%

*$75,000 + $23,130 **$69,000 + $20,000

EXERCISE 14-12

(a)

MOLINI CORPORATION
Partial Income Statement
For the Year Ended October 31, 2011

Income before income taxes		£540,000
Income tax expense (£540,000 X 30%)		162,000
Income from continuing operations		378,000
Discontinued operations		
Loss from operations of discontinued division, net of £18,000 income tax saving	£42,000	
Loss from disposal of discontinued division, net of £27,000 income tax savings	63,000	105,000
Net income		£273,000

(b) To: Chief Accountant

From: Your name, Independent Auditor

After reviewing your income statement for the year ended 10/31/11, we believe it is misleading for the following reasons:

The amount reported for income before discontinued operations is overstated by £45,000. The income tax expense should be 30% of £540,000, or £162,000, not £117,000.

Also, the effect of the loss from the discontinued division on net income is only £105,000, not £150,000. An income tax savings of £45,000 should be netted against the loss on the discontinued division.

EXERCISE 14-13

(a)

YADIER CORPORATION
Partial Income Statement
For the Year Ended December 31, 2011

Income from continuing operations	$290,000
Discontinued operations	
Gain on discontinued division, net of $9,000 income taxes	21,000
Net income	$311,000

(b) The correction of an error in last year's financial statements is a prior period adjustment. The correction is reported in the 2011 retained earnings statement as an adjustment that increases the reported beginning balance of retained earnings by $14,000, or [$20,000 – ($20,000 X 30%)].

SOLUTIONS TO PROBLEMS

PROBLEM 14-1

(a)

Condensed Income Statement
For the Year Ended December 31, 2012

	Douglas Company		Maulder Company	
	Dollars	Percent	Dollars	Percent
Net sales	$1,549,035	100.0%	$339,038	100.0%
Cost of goods sold	1,080,490	69.8%	241,000	71.1%
Gross profit	468,545	30.2%	98,038	28.9%
Operating expenses	302,275	19.5%	79,000	23.3%
Income from operations	166,270	10.7%	19,038	5.6%
Interest expense	8,980	.6%	2,252	.7%
Income before income taxes	157,290	10.1%	16,786	4.9%
Income tax expense	54,500	3.5%	6,650	1.9%
Net income	$ 102,790	6.6%	$ 10,136	3.0%

(b) Douglas Company appears to be more profitable. It has higher relative gross profit, income from operations, income before taxes, and net income. Douglas's return on assets of 12.4% $\left(\frac{\$102,790}{\$829,848}\right)^{a}$ is higher than Maulder's return on assets of 4.7% $\left(\frac{\$10,136}{\$214,172}\right)^{b}$. Also, Douglas's return on ordinary shareholders' equity of 15.6% $\left(\frac{\$102,790}{\$660,028}\right)^{c}$ is higher than Maulder's return on shareholders' equity of 6.6% $\left(\frac{\$10,136}{\$154,047}\right)^{d}$.

PROBLEM 14-1 (Continued)

[a]$102,790 is Douglas's 2012 net income. $829,848 is Douglas's 2012 average assets:

	2012		2011		
Plant assets	$521,310		$500,000		
Current assets	325,975		312,410		
Total assets	$847,285	+	$812,410	=	$\frac{\$1,659,695}{2}$

[b]$10,136 is Maulder's 2012 net income. $214,172 is Maulder's 2012 average assets:

	2012		2011		
Plant assets	$139,728		$125,812		
Current assets	83,336		79,467		
Total assets	$223,064	+	$205,279	=	$\frac{\$428,343}{2}$

[c]$102,790 is Douglas's 2012 net income. $660,028 is Douglas's 2012 average ordinary shareholders' equity:

	2012		2011		
Share capital—ordinary	$500,000		$500,000		
Retained earnings	173,460		146,595		
Shareholders' equity	$673,460	+	$646,595	=	$\frac{\$1,320,055}{2}$

[d]$10,136 is Maulder's 2012 net income. $154,047 is Maulder's 2012 average ordinary shareholders' equity:

	2012		2011		
Share capital—ordinary	$120,000		$120,000		
Retained earnings	38,096		29,998		
Shareholders' equity	$158,096	+	$149,998	=	$\frac{\$308,094}{2}$

PROBLEM 14-2

(a) Earnings per share = $\frac{\text{R\$192,000}}{57{,}000}$ = R$3.37.

(b) Return on ordinary shareholders' equity = $\frac{\text{R\$192,000}}{\left[\frac{\text{R\$465,400} + \text{R\$566,700}}{2}\right]}$

$= \frac{\text{R\$192,000}}{\text{R\$516,050}}$

= 37.2%.

(c) Return on assets = $\frac{\text{R\$192,000}}{\left[\frac{\text{R\$852,800} + \text{R\$970,200}}{2}\right]} = \frac{\text{R\$192,000}}{\text{R\$911,500}}$ = 21.1%.

(d) Current ratio = $\frac{\text{R\$369,900}}{\text{R\$203,500}}$ = 1.82:1

(e) Acid-test ratio = $\frac{\text{R\$246,900}}{\text{R\$203,500}}$ = 1.21:1

(f) Receivables turnover = $\frac{\text{R\$1,818,500}}{\left[\frac{(\text{R\$102,800} + \text{R\$117,800})}{2}\right]}$

$= \frac{\text{R\$1,818,500}}{\text{R\$110,300}}$

= 16.5 times.

PROBLEM 14-2 (Continued)

(g) Inventory turnover = $\frac{\text{R\$1,011,500}}{\left[\frac{\text{R\$115,500} + \text{R\$123,000}}{2}\right]} = \frac{\text{R\$1,011,500}}{\text{R\$119,250}}$ = 8.5 times.

(h) Times interest earned = $\frac{\text{R\$291,000}}{\text{R\$18,000}}$ = 16.2 times.

(i) Asset turnover = $\frac{\text{R\$1,818,500}}{\text{R\$911,500*}}$ = 2.0 times.

*(R$852,800 + R$970,200) ÷ 2

(j) Debt to total assets = $\frac{\text{R\$403,500}}{\text{R\$970,200}}$ = 41.6%.

PROBLEM 14-3

(a)

	2011	2012
(1) Profit margin.	$\frac{\$30,000}{\$650,000} = 4.6\%$	$\frac{\$45,000}{\$700,000} = 6.4\%$
(2) Asset turnover.	$\frac{\$650,000}{\left[\frac{\$533,000 + \$600,000}{2}\right]} = 1.1 \text{ times}$	$\frac{\$700,000}{\left[\frac{\$600,000 + \$640,000}{2}\right]} = 1.1 \text{ times}$
(3) Earnings per share.	$\frac{\$30,000}{31,000} = \$.97$	$\frac{\$45,000}{32,000} = \$1.41$
(4) Price-earnings ratio.	$\frac{\$5.00}{\$.97} = 5.2 \text{ times}$	$\frac{\$8.00}{\$1.41} = 5.7 \text{ times}$
(5) Payout ratio.	$\frac{\$18,000^{*}}{\$30,000} = 60.0\%$	$\frac{\$25,000^{**}}{\$45,000} = 55.6\%$
	*($113,000 + $30,000 – $125,000)	**($125,000 + $45,000 – $145,000)
(6) Debt to total assets.	$\frac{\$165,000}{\$600,000} = 27.5\%$	$\frac{\$155,000}{\$640,000} = 24.2\%$

PROBLEM 14-3 (Continued)

(b) The underlying profitability of the corporation appears to have improved. For example, profit margin and earnings per share have both increased. In addition, the corporation's price-earnings ratio has increased, which suggests that investors may be looking more favorably at the corporation. Also, the corporation appears to be involved in attempting to reduce its debt burden as its debt to total assets ratio has decreased. Similarly, its payout ratio has decreased, which should help its overall solvency.

PROBLEM 14-4

(a) LIQUIDITY

	2011	2012	Change
Current	$\frac{€343{,}000}{€182{,}000}$ = 1.9:1	$\frac{€374{,}000}{€198{,}000}$ =1.9:1	No change
Acid-test	$\frac{€185{,}000}{€182{,}000}$ = 1.0:1	$\frac{€220{,}000}{€198{,}000}$ = 1.1:1	Increase
Receivables turnover	$\frac{€790{,}000}{€84{,}000^{*}}$ = 9.4 times	$\frac{€850{,}000}{€89{,}000^{**}}$ = 9.6 times	Increase

*(€88,000 + €80,000) ÷ 2 **(€80,000 + €98,000) ÷ 2

	2011	2012	Change
Inventory turnover	$\frac{€575{,}000}{€126{,}500^{*}}$ = 4.5 times	$\frac{€620{,}000}{€130{,}000^{**}}$ = 4.8 times	Increase

*(€118,000 + €135,000) ÷ 2 **(€135,000 + €125,000) ÷ 2

An overall increase in short-term liquidity has occurred.

PROFITABILITY

	2011	2012	Change
Profit margin	$\frac{€42{,}000}{€790{,}000}$ = 5.3%	$\frac{€43{,}000}{€850{,}000}$ = 5.1%	Decrease
Asset turnover	$\frac{€790{,}000}{€639{,}000}$ = 1.2 times	$\frac{€850{,}000}{€666{,}000}$ = 1.3 times	Increase
Return on assets	$\frac{€42{,}000}{€639{,}000}$ = 6.6%	$\frac{€43{,}000}{€666{,}000}$ = 6.5%	Decrease
Earnings per share	$\frac{€42{,}000}{20{,}000}$ = €2.10	$\frac{€43{,}000}{20{,}000}$ = €2.15	Increase

Profitability has remained relatively the same.

PROBLEM 14-4 (Continued)

(b)

		2012	2013	Change
(1)	Return on ordinary shareholders' equity	$\frac{€43,000}{€326,000\ (a)} = 13.2\%$	$\frac{€50,000}{€451,000\ (b)} = 11.1\%$	Decrease
(2)	Debt to total assets	$\frac{€348,000\ (c)}{€684,000} = 50.9\%$	$\frac{€248,000}{€700,000} = 35.4\%$	Decrease
(3)	Price-earnings ratio	$\frac{€9.00}{€2.15} = 4.2$ times	$\frac{€12.80}{€2.50\ (d)} = 5.1$ times	Increase

(a) (€200,000 + €136,000 + €200,000 + €116,000) ÷ 2.
(b) (€380,000 + €186,000 + €200,000 + €136,000) ÷ 2.
(c) €100,000 + € 48,000 + € 50,000 + €150,000.
(d) €50,000 ÷ 20,000.

PROBLEM 14-5

(a)

(All Dollars Are in Millions)

	Ratio	Target		Wal-Mart	
(1)	Current	1.6:1	(\$18,906 ÷ \$11,782)	.8:1	(\$47,585 ÷ \$58,454)
(2)	Receivables turnover	8.6	(\$61,471 ÷ \$7,124)	115.3	(\$374,526 ÷ \$3,247)
(3)	Average collection period	42.4	(365 ÷ 8.6)	3.2	(365 ÷ 115.3)
(4)	Inventory turnover	6.4	(\$41,895 ÷ \$6,517)	8.3	(\$286,515 ÷ \$34,433)
(5)	Days in inventory	57.0	(365 ÷ 6.4)	44.0	(365 ÷ 8.3)
(6)	Profit margin	4.6%	(\$2,849 ÷ \$61,471)	3.4%	(\$12,731 ÷ \$374,526)
(7)	Asset turnover	1.5	(\$61,471 ÷ \$40,954.5[a])	2.4	(\$374,526 ÷ \$157,550.5[c])
(8)	Return on assets	7.0%	(\$2,849 ÷ \$40,954.5[a])	8.1%	(\$12,731 ÷ \$157,550.5[c])
(9)	Return on ordinary shareholders' equity	18.4%	(\$2,849 ÷ \$15,470[b])	20.2%	(\$12,731 ÷ \$63,090.5[d])
(10)	Debt to total assets	65.6%	(\$29,253 ÷ \$44,560)	60.5%	(\$98,906 ÷ \$163,514)
(11)	Times interest earned	8.1	(\$5,272 ÷ \$647)	11.9	(\$21,437 ÷ \$1,798)

[a](\$44,560 + \$37,349) ÷ 2
[b](\$15,307 + \$15,633) ÷ 2
[c](\$163,514 + \$151,587) ÷ 2
[d](\$64,608 + \$61,573) ÷ 2

(b) The comparison of the two companies shows the following:

Liquidity—Target's current ratio of 1.6:1 is significantly better than Wal-Mart's .8:1. However, Wal-Mart has a better inventory turnover ratio than Target and its receivables turnover is substantially better than Target's.

Profitability—With the exception of profit margin, Wal-Mart betters Target in all of the profitability ratios. Thus, it is more profitable than Target.

Solvency—Wal-Mart betters Target in both of the solvency ratios. Thus, it is more solvent than Target.

PROBLEM 14-6

(a) Current ratio = $\dfrac{£215{,}000}{£145{,}000}$ = 1.5:1.

(b) Acid-test ratio = $\dfrac{£21{,}000 + £18{,}000 + £86{,}000}{£145{,}000}$ = 0.86:1.

(c) Receivables turnover = $\dfrac{£600{,}000}{\left[\dfrac{(£86{,}000 + £74{,}000)}{2}\right]}$

= 7.5 times.

(d) Inventory turnover = $\dfrac{£415{,}000}{\left[\dfrac{£90{,}000 + £70{,}000}{2}\right]}$ = 5.2 times.

(e) Profit margin ratio = $\dfrac{£38{,}400}{£600{,}000}$ = 6.4%.

(f) Asset turnover = $\dfrac{£600{,}000}{\left[\dfrac{£638{,}000 + £560{,}000}{2}\right]}$ = 1.0 times.

(g) Return on assets = $\dfrac{£38{,}400}{\left[\dfrac{£638{,}000 + £560{,}000}{2}\right]}$ = 6.4%.

(h) Return on ordinary shareholders' equity = $\dfrac{£38{,}400}{\left[\dfrac{£373{,}000 + £350{,}000}{2}\right]}$

= 10.6%.

PROBLEM 14-6 (Continued)

(i) **Earnings per share** = $\dfrac{\pounds38{,}400}{30{,}000\ (1)}$ = £1.28.

(1) £150,000 ÷ £5.00

(j) **Price-earnings ratio** = $\dfrac{\pounds19.50}{\pounds1.28}$ = 15.2 times.

(k) **Payout ratio** = $\dfrac{\pounds15{,}400\ (2)}{\pounds38{,}400}$ = 40.1%.

(2) £200,000 + £38,400 – £223,000

(l) **Debt to total assets** = $\dfrac{\pounds265{,}000}{\pounds638{,}000}$ = 41.5%.

(m) **Times interest earned** = $\dfrac{\pounds64{,}200\ (3)}{\pounds7{,}800}$ = 8.2 times.

(3) £38,400 + £18,000 + £7,800

PROBLEM 14-7

$$\text{Receivables turnover} = 10 = \frac{\$11{,}000{,}000}{\text{Average receivables}}$$

$$\text{Average receivables} = \frac{\$11{,}000{,}000}{10} = \$1{,}100{,}000$$

$$\frac{\text{Net receivables } 12/31/12 + \$950{,}000}{2} = \$1{,}100{,}000$$

Net receivables 12/31/12 + $950,000 = $2,200,000

Net receivables 12/31/12 = $1,250,000

$$\text{Profit margin} = 14.5\% = .145 = \frac{\text{Net income}}{\$11{,}000{,}000}$$

Net income = $11,000,000 X .145 = $1,595,000

Income before income taxes = $1,595,000 + $560,000 = $2,155,000

$$\text{Return on assets} = 22\% = .22 = \frac{\$1{,}595{,}000}{\text{Average assets}}$$

Average assets = $1,595,000 ÷ .22 = $7,250,000

$$\frac{\text{Assets } (12/31/12) + \$7{,}000{,}000}{2} = \$7{,}250{,}000$$

Assets (12/31/12) = $7,500,000

Total current assets = $7,500,000 – $4,620,000 = $2,880,000

Inventory = $2,880,000 – $1,250,000 – $450,000 = $1,180,000

Total equity and liabilities = $7,500,000

Total liabilities = $7,500,000 – $3,400,000 = $4,100,000

PROBLEM 14-7 (Continued)

$$\text{Current ratio} = 3.0 = \frac{\$2,880,000}{\text{Current liabilities}}$$

Current liabilities = \$2,880,000 ÷ 3.0 = $\underline{\underline{\$960,000}}$

Long-term notes payable = \$4,100,000 – \$960,000 = $\underline{\underline{\$3,140,000}}$

$$\text{Inventory turnover} = 4.8 = \frac{\text{Cost of goods sold}}{\left[\dfrac{\$1,720,000 + \$1,180,000}{2}\right]}$$

Cost of goods sold = \$1,450,000 X 4.8 = $\underline{\underline{\$6,960,000}}$

Gross profit = \$11,000,000 – \$6,960,000 = $\underline{\underline{\$4,040,000}}$

Income from operations = \$4,040,000 – \$1,665,000 = $\underline{\underline{\$2,375,000}}$

Interest expense = \$2,375,000 – \$2,155,000 = $\underline{\underline{\$220,000}}$

PROBLEM 14-8

CHEANEY CORPORATION
Condensed Income Statement
For the Year Ended December 31, 2011

Operating revenues		
(€12,850,000 – €2,000,000)		€10,850,000
Operating expenses		
(€8,700,000 – €2,400,000)		6,300,000
Income from operations		4,550,000
Other revenues and gains		100,000
Income before income taxes		4,650,000
Income tax expense (€4,650,000 X 30%)		1,395,000
Income from continuing operations		3,255,000
Discontinued operations		
Loss from operations of hotel chain*, net of €120,000 income tax savings	€280,000	
Gain on sale of hotels, net of €60,000 income taxes	140,000	140,000
Net income		€ 3,115,000

*€2,000,000 – €2,400,000 = (€400,000)

PROBLEM 14-9

LARUSSA CORPORATION
Income Statement
For the Year Ended December 31, 2011

Net sales		$1,700,000
Cost of goods sold		1,100,000
Gross profit		600,000
Selling and administrative expenses		270,000
Income from operations		330,000
Other revenues and gains	$20,000	
Other expenses and losses	28,000	8,000
Income before income taxes		322,000
Income tax expense ($322,000 X 30%)		96,600
Income from continuing operations		225,400
Discontinued operations		
Income from operations of discontinued division, net of $6,000 income taxes	14,000	
Loss on disposal of discontinued division, net of $27,000 income tax saving	63,000	49,000
Net income		$ 176,400

BYP 14-1 FINANCIAL REPORTING PROBLEM

(a)

CADBURY, INC.
Trend Analysis of Net Sales and Net Income
For the Two Years Ended 2008

Base Period 2007—(in millions)

	2008	2007
(1) Net sales	£5,384	£4,699
Trend	115%	100%
(2) Net income	£366	407
Trend	90%	100%

Between 2007 and 2008 Cadbury's net sales increased by 15%. Cadbury's net income decreased by 10% between 2007 and 2008.

(b) (dollar amounts in millions)

(1) Profit Margin

2008: £366 ÷ £5,384 = 6.8%
2007: £407 ÷ £4,699 = 8.7%

(2) Asset Turnover

2008: £5,384 ÷ [(£ 8,895 + £11,338) ÷ 2] =.53 times
2007: £4,699 ÷ [(£11,338 + £10,233) ÷ 2] = .44 times

(3) Return on Assets

2008: £366 ÷ [(£ 8,895 + £11,338) ÷ 2] = 3.6%
2007: £407 ÷ [($11,338 + £10,233) ÷ 2] = 3.8%

BYP 14-1 (Continued)

(4) Return on Ordinary Shareholders' Equity

2008: (£366 – £2) ÷ [(£3,534 + £4,173) ÷ 2] = 9.4%
2007: (£407 – £2) ÷ [(£4,173 + £3,696) ÷ 2] = 10.3%

In general, Cadbury's profitability decreased from 2007 to 2008.

(c) (dollar amounts in millions)

(1) Debt to Total Assets

2008: £5,361 ÷ £ 8,895 = 60.3%
2007: £7,165 ÷ £11,338 = 63.2%

(2) Times Interest Earned

2008: (£400 + £50) ÷ £50 = 9.0 times
2007: (£254 + £88) ÷ £88 = 3.9 times

Although creditors are providing more than 60% of Cadbury's total assets, its long-term solvency is not in jeopardy. Cadbury has the ability to pay the interest on its debt as indicated by the times interest earned ratio of 9 in 2008.

(d) Substantial amounts of important information about a company are not in its financial statements. Events involving such things as industry changes, management changes, competitors' actions, technological developments, governmental actions, and union activities are often critical to the successful operation of a company. Financial reports in the media and publications of financial service firms (Standard & Poors, Dun & Bradstreet) will provide relevant information not usually found in the annual report.

BYP 14-2 COMPARATIVE ANALYSIS PROBLEM

(a)

		Dec 31, 2008 Cadbury	Dec. 31, 2007 Nestlé
(1) (i)	Percentage increase in net sales	$\frac{£5,384 - £4,699}{£4,699} = 14.6\%$	$\frac{CHF109,908 - CHF107,552}{CHF107,552} = 2.2\%$
(ii)	Percentage increase (decrease) in net income	$\frac{£366 - £407}{£407} = (10.1\%)$	$\frac{CHF19,051 - CHF11,382}{CHF11,382} = 67.4\%$
(2) (i)	Percentage increase (decrease) in total assets	$\frac{£8,895 - £11,338}{£11,338} = (21.5\%)$	$\frac{CHF106,215 - CHF115,361}{CHF115,361} = (7.9\%)$
(ii)	Percentage increase (decrease) in total ordinary shareholders' equity	$\frac{£3,534 - £4,173}{£4,173} = (15.3\%)$	$\frac{CHF54,916 - CHF54,776}{CHF54,776} = .3\%$
(3)	Profit margin ratio	$\frac{£366}{£5,384} = 6.8\%$	$\frac{CHF19,051}{CHF109,908} = 17.3\%$
	Return on assets	$\frac{£366}{£10,117^*} = 3.6\%$	$\frac{CHF19,051}{CHF110,778^*} = 17.2\%$

*(£11,338 + £8,895) ÷ 2 *(CHF115,361 + CHF106,215) ÷ 2

(b) Cadbury's net sales increased 14.6% while Nestlé's increased only 2.2%. Cadbury's net income decreased 10.1% while Nestlé's net income increased 67.4% from 2007 to 2008. Cadbury's total assets decreased 21.5% while Nestlé decreased its assets 7.9%.

Cadbury decreased shareholders' equity by 15.3% and Nestlé's shareholders' equity increased only .3%.

Cadbury's profit margin was 6.8% while Nestlé was 17.3%. Nestlé return on assets of 17.2% was substantially higher than Cadbury's return of only 3.6%.

BYP 14-3 DECISION MAKING ACROSS THE ORGANIZATION

The current ratio increase is a favorable indication as to liquidity, but alone tells little about the going-concern prospects of the client. From this ratio change alone, it is impossible to know the amount and direction of the changes in individual accounts, total current assets, and total current liabilities. Also unknown are the reasons for the changes.

The acid-test ratio decrease is an unfavorable indication as to liquidity, especially when the current-ratio increase is also considered. This decline is also unfavorable as to the going-concern prospects of the client because it reflects a declining cash position and raises questions as to reasons for the increases in other current assets, such as inventories.

The change in asset turnover cannot alone tell anything about either solvency or going-concern prospects. There is no way to know the amount and direction of the changes in sales and assets. An increase in sales would be favorable for going-concern prospects, while a decrease in assets could represent a number of possible scenarios and would need to be investigated further.

The increase in net income is a favorable indicator for both solvency and going-concern prospects, although much depends on the quality of receivables generated from sales and how quickly they can be converted into cash. If there has been a decline in sales, a significant factor is that management has been able to reduce costs to produce an increase in earnings. Indirectly, the improved income picture may have a favorable impact on solvency and going-concern potential by enabling the client to borrow currently (if it needs to do so) to meet cash requirements.

The 32-percent increase in earnings per share, which is identical to the percentage increase in net income, is an indication that there has probably been no change in the number of ordinary shares outstanding. This, in turn, indicates that financing was not obtained through the issuance of ordinary shares. It is not possible to reach conclusions about solvency and going-concern prospects without additional information about the nature and extent of financing.

BYP 14-3 (Continued)

The collective implications of these data alone are that the client entity is about as solvent and as viable a going concern at the end of the current year as it was at the beginning although there may be a need for short-term operating cash.

BYP 14-4 DECISION MAKING ACROSS THE ORGANIZATION

(a)

GENERAL DYNAMICS CORPORATION
Income Statement
For the Year Ended December 31, 2011

		(In Millions of Dollars)
Net sales		$8,163.8
Cost of goods sold		6,958.8
Gross profit		1,205.0
Selling and administrative expenses		537.0
Income from operations		668.0
Other income and expense		
Interest revenue		3.6
Interest expense		17.2
Income before income taxes		654.4
Income tax expense		282.9
Income from continuing operations		371.5
Discontinued operations		
Earnings from operation of Quincy Division, net of $12.5 income taxes	15.8	
Loss from disposal of Quincy Division, net of $4.3 income tax saving	5.0	10.8
Net income		$ 382.3
Earnings per share of ordinary shares		
Income from continuing operations		$ 8.78
Gain from discontinued operations		.26
Net income		$ 9.04

(b) 1. In the preceding year, Quincy had net earnings from discontinued operations of $28.8 million ($51.6 – $22.8). Therefore, the average number of ordinary shares outstanding during the year is 47.2 million shares. This amount is found by dividing the income from discontinued operations, $28.8 million, by its earning per share amount $0.61.

2. In the preceding year, Quincy had income from continuing operations of $352.6 million (47.2 million shares X $7.47/share).

BYP 14-5 COMMUNICATION ACTIVITY

To: Beth Harlan

From: Accounting Major

Subject: Financial Statement Analysis

There are two fundamental considerations in financial statement analysis: (1) the bases of comparison and (2) the factors affecting quality of earnings. Each of these considerations is explained below.

1. Bases of comparison. The bases of comparison are:

   a. Intracompany—This basis compares an item or financial relationship within a company in the current year with the same item or relationship in one or more prior years.

   b. Industry averages—This basis compares an item or financial relationship of a company with industry averages (or norms).

   c. Intercompany—This basis compares an item or financial relationship of one company with the same item or relationship in one or more competing companies.

2. Factors affecting quality of earnings are:

   a. Alternative accounting methods—Variations among companies in the application of accounting principles may hamper comparability and reduce quality of earnings.

   b. Pro forma income—This income figure usually excludes items that the company thinks are unusual or nonrecurring.

   c. Improper recognition—Because some managers have felt pressure from investors to continually increase earnings, they have manipulated the earnings numbers to meet these expectations.

BYP 14-6	ETHICS CASE

(a) The stakeholders in this case are:

- Jack McClintock, president of McClintock Industries.
- Jeremy Phelps, public relations director.
- You, as controller of McClintock Industries.
- Shareholders of McClintock Industries.
- Potential investors in McClintock Industries.
- Any readers of the press release.

(b) The president's press release is deceptive and incomplete and to that extent his actions are unethical.

(c) As controller you should at least inform Jeremy, the public relations director, about the biased content of the release. He should be aware that the information he is about to release, while factually accurate, is deceptive and incomplete. Both the controller and the public relations director (if he agrees) have the responsibility to inform the president of the bias of the about to be released information.

CHAPTER 15

Equity

ASSIGNMENT CLASSIFICATION TABLE (BY TOPIC)

Topics	Questions	Brief Exercises	Exercises	Problems	Concepts for Analysis
1. Shareholders' rights; corporate form.	1, 2, 3				1
2. Equity.	4, 5, 6, 16, 17, 18, 29, 30, 31	3	7, 10, 16, 17	1, 2, 3, 9	
3. Issuance of shares.	7, 10	1, 2, 6	1, 2, 4, 6, 9	1, 3, 4	
4. Noncash share transactions; lump sum sales.	8, 9	4, 5	3, 4, 5, 6	1, 4	2
5. Treasury share transactions, cost method.	11, 12, 17	7, 8	3, 6, 7, 9, 10, 18	1, 2, 3, 5, 6, 7	7
6. Preference stock.	3, 13, 14, 15	9	2, 8	1, 3	
7. Equity accounts; classifications; terminology.			10, 11, 16, 17	9, 11, 12	3
8. Dividend policy.	19, 20, 21, 22, 25, 26	10	12, 15	7, 10	
9. Cash and share dividends; share splits; property dividends; liquidating dividends.	22, 23, 24	10, 11, 12, 13, 14	13, 14, 15, 18	6, 7, 8, 10, 11	4, 5, 6
10. Restrictions of retained earnings.	27, 28			9	
11. Presentation and analysis			17, 19, 20	12	
*12. Dividend preferences and book value.	32	15	21, 22, 23, 24		

*This material is covered in an Appendix to the chapter.

ASSIGNMENT CLASSIFICATION TABLE (BY LEARNING OBJECTIVE)

Learning Objectives	Brief Exercises	Exercises	Problems
1. Discuss the characteristics of the corporate form of organization.			
2. Identify the key components of equity.			
3. Explain the accounting procedures for issuing shares.	1, 2, 4, 5, 6	1, 2, 3, 4, 5, 6, 8, 9, 10	1, 3, 4, 9, 12
4. Describe the accounting for treasury shares.	3, 7, 8	6, 7, 9, 10, 18	1, 2, 3, 5, 6, 7, 9, 12
5. Explain the accounting for and reporting of preference shares.	9	5, 8	4
6. Describe the policies used in distributing dividends.	10, 11, 12	16	
7. Identify the various forms of dividend distributions.	11, 12	11, 12, 15, 16, 18	3, 6, 7, 8, 9, 11, 12
8. Explain the accounting for small and large share dividends, and for share splits.	13, 14	11, 13, 14, 15, 16, 18	3, 8, 10, 11, 12
9. Indicate how to present and analyze equity.	3	17, 19, 20	1, 2, 6, 9, 11, 12
*10. Explain the different types of preference share dividends and their effect on book value per share.	15	8, 21, 22, 23, 24	

ASSIGNMENT CHARACTERISTICS TABLE

Item	Description	Level of Difficulty	Time (minutes)
E15-1	Recording the issuances of ordinary shares.	Simple	15–20
E15-2	Recording the issuance of ordinary and preference shares.	Simple	15–20
E15-3	Shares issued for land.	Simple	10–15
E15-4	Lump-sum sale of shares with bonds.	Moderate	20–25
E15-5	Lump-sum sales of ordinary and preference shares.	Simple	10–15
E15-6	Share issuances and repurchase.	Moderate	25–30
E15-7	Effect of treasury share transactions on financials.	Moderate	15–20
E15-8	Preference share entries and dividends.	Moderate	15–20
E15-9	Correcting entries for equity transactions.	Moderate	15–20
E15-10	Analysis of equity data and equity section preparation.	Moderate	20–25
E15-11	Equity items on the statement of financial position.	Simple	15–20
E15-12	Cash dividend and liquidating dividend.	Simple	10–15
E15-13	Share split and share dividend.	Simple	10–15
E15-14	Entries for share dividends and share splits.	Simple	10–12
E15-15	Dividend entries.	Simple	10–15
E15-16	Computation of retained earnings.	Simple	05–10
E15-17	Equity section.	Moderate	20–25
E15-18	Dividends and equity section.	Moderate	30–35
E15-19	Comparison of alternative forms of financing.	Moderate	20–25
E15-20	Trading on the equity analysis.	Moderate	15–20
*E15-21	Preference dividends.	Simple	10–15
*E15-22	Preference dividends.	Moderate	15–20
*E15-23	Preference share dividends.	Complex	15–20
*E15-24	Computation of book value per share.	Moderate	10–20
P15-1	Equity transactions and statement preparation.	Moderate	50–60
P15-2	Treasury share transactions and presentation.	Simple	25–35
P15-3	Equity transactions and statement preparation.	Moderate	25–30
P15-4	Share transactions—lump sum.	Moderate	20–30
P15-5	Treasury shares—cost method.	Moderate	30–40
P15-6	Treasury shares—cost method—equity section preparation.	Moderate	30–40
P15-7	Cash dividend entries.	Moderate	15–20
P15-8	Dividends and splits.	Moderate	20–25
P15-9	Equity section of statement of financial position.	Simple	20–25
P15-10	Share dividends and share split.	Moderate	35–45
P15-11	Share and cash dividends.	Simple	25–35
P15-12	Analysis and classification of equity transactions.	Complex	35–45
CA15-1	Preemptive rights and dilution of ownership.	Moderate	10–20
CA15-2	Issuance of shares for land.	Moderate	15–20
CA15-3	Conceptual issues—equity.	Moderate	25–30
CA15-4	Share dividends and splits.	Simple	25–30
CA15-5	Share dividends.	Simple	15–20
CA15-6	Share dividend, cash dividend, and treasury shares.	Moderate	20–25
CA15-7	Treasury shares, ethics.	Moderate	10–15

*This material is presented in an appendix to the chapter.

ANSWERS TO QUESTIONS

1. The basic rights of each shareholder (unless otherwise restricted) are to share proportionately: (1) in profits, (2) in management (the right to vote for directors), (3) in corporate assets upon liquidation, and (4) in any new issues of shares of the same class (preemptive right).

2. The preemptive right protects existing shareholders from dilution of their ownership share in the event the corporation issues new shares.

3. Preference shares commonly have preference to dividends in the form of a fixed dividend rate and a preference over ordinary shares to remaining corporate assets in the event of liquidation. Preference shares usually do not give the holder the right to share in the management of the company. Ordinary shares are the residual security possessing the greater risk of loss and the greater potential for gain; they are guaranteed neither dividends nor assets upon dissolution but they generally control the management.

4. The distinction between contributed (paid-in) capital and retained earnings is important for both legal and economic points of view. Legally, dividends can be declared out of retained earnings in all countries, but in many countries dividends cannot be declared out of contributed (paid-in) capital. Economically, management, shareholders, and others look to earnings for the continued existence and growth of the corporation.

5. Authorized ordinary shares—the total number of shares authorized by the country of incorporation for issuance.
Unissued ordinary shares—the total number of shares authorized but not issued.
Issued ordinary shares—the total number of shares issued (distributed to shareholders).
Outstanding ordinary shares—the total number of shares issued and still in the hands of shareholders (issued less treasury shares).
Treasury shares—shares issued and repurchased by the issuing corporation but not retired.

6. Par value is an arbitrary, fixed per share amount assigned to a share by the incorporators. It is recognized as the amount that must be paid in for each share if the shares are to be fully paid when issued. If not fully paid, the shareholder has a contingent liability for the discount results.

7. The issuance for cash of no-par value ordinary shares at a price in excess of the stated value of the ordinary shares is accounted for as follows:
(1) Cash is debited for the proceeds from the issuance of the ordinary shares.
(2) Share Capital—Ordinary is credited for the stated value of the ordinary shares.
(3) Share Premium—Ordinary is credited for the excess of the proceeds from the issuance of the ordinary shares over their stated value.

8. The proportional method is used to allocate the lump sum received on sales of two or more classes of securities when the fair value or other sound basis for determining relative value is available for each class of security. In instances where the fair value of all classes of securities is not determinable in a lump-sum sale, the incremental method must be used. The value of the securities is used for those classes that are known and the remainder is allocated to the class for which the value is not known.

9. The general rule to be applied when shares are issued for services or property other than cash is that companies should record the shares issued at the fair value of the goods or services received, unless that fair value cannot be measured reliably. If the fair value of the goods or services cannot be measured reliably, use the fair value of the shares issued. If a company cannot readily determine either the fair value of the shares it issues or the property or services it receives, it should employ an appropriate valuation technique. Depending on available data, the valuation may be based on market transactions involving comparable assets or the use of discounted expected future cash flows. Companies should avoid the use of the book, par, or stated values as a basis of valuation for these transactions.

10. The direct costs of issuing shares, such as underwriting costs, accounting and legal fees, printing costs, and taxes, should be reported as a reduction of the amounts paid in. Issue costs are therefore debited to Share Premium because they are unrelated to corporate operations.

11. The major reasons for purchasing its own shares are: (1) to provide tax-efficient distributions of excess cash to shareholders, (2) to increase earnings per share and return on equity, (3) to provide shares for employee compensation contracts, (4) to thwart takeover attempts or to reduce the number of shareholders, (5) to make a market in the company's shares.

12. (a) Treasury shares should not be classified as an asset since a corporation cannot own itself.

(b) The "gain" or "loss" on sale of treasury shares should not be treated as additions to or deductions from income. If treasury shares are carried in the accounts at cost, these so-called gains or losses arise when the treasury shares are sold. These "gains" or "losses" should be considered as additions to or reductions of equity. In some instances, the "loss" should be charged to Retained Earnings. "Gains" or "losses" arising from treasury shares transactions are not included as a component of net income since dealings in treasury shares represent equity transactions.

(c) Dividends on treasury shares should never be included as income, but should be credited directly to retained earnings, against which they were incorrectly charged. Since treasury shares cannot be considered an asset, dividends on treasury shares are not properly included in net income.

13. The character of preference shares can be altered by being cumulative or non-cumulative, participating or non-participating, convertible or non-convertible, and/or callable or non-callable.

14. Nonparticipating means the security holder is entitled to no more than the specified fixed dividend. If the security is partially participating, it means that in addition to the specified fixed dividend the security may participate with the ordinary shares in dividends up to a certain stated rate or amount. A fully participating security shares pro rata with the ordinary shares dividends declared without limitation. In this case, Kim Inc. has fully participating preference shares. Cumulative means dividends not paid in any year must be made up in a later year before any profits can be distributed to ordinary shareholders. Any dividends not paid on cumulative preference shares constitute a dividend in arrears. A dividend in arrears is not a liability until the board of directors declares a dividend.

15. Preference shares are generally reported at par value as the first item in the equity section of a company's statement of financial position. Any excess over par value is reported as share premium-preference.

16. Sources of equity include (1) share capital, (2) share premium, (3) retained earnings, (4) accumulated other comprehensive income, and reduced by (5) treasury shares.

17. When treasury shares are purchased, the Treasury Shares account is debited and Cash is credited at **cost** (€290,000 in this case). Treasury Shares is a contra equity account and Cash is an asset. Thus, this transaction has: (a) no effect on net income, (b) decreases total assets, (c) has no effect on retained earnings, and (d) decreases total equity.

18. The answers are summarized in the table below:

	Account	Classification
(a)	Share capital—ordinary	Share capital
(b)	Retained Earnings	Retained earnings
(c)	Share Premium—Ordinary	Share premium
(d)	Treasury Shares	Deducted from total equity
(e)	Share Premium—Treasury	Share premium
(f)	Accumulated Other Comprehensive Income	Added to total equity
(g)	Share capital—preference	Share capital

19. The dividend policy of a company is influenced by (1) the availability of cash, (2) the stability of earnings, (3) current earnings, (4) prospective earnings, (5) the existence or absence of contractual restrictions on working capital or retained earnings, and (6) a retained earnings balance.

20. In declaring a dividend, the board of directors must consider the condition of the corporation such that a dividend is (1) legally permissible and (2) economically sound.

In general, directors should give consideration to the following factors in determining the legality of a dividend declaration:

(1) Retained earnings, unless legally encumbered in some manner, is usually the correct basis for dividend distribution.

(2) Dividends in some jurisdictions may not reduce retained earnings below the cost of treasury shares held.

In addition, in some jurisdictions, share premium may be used for dividends, although such dividends may be limited to preference shares. Generally, deficits in retained earnings and debits in contributed (paid-in) capital accounts must be restored before payment of any dividends.

In order that dividends be economically sound, the board of directors should consider: (1) the availability (liquidity) of assets for distribution; (2) agreements with creditors; (3) the effect of a dividend on investor perceptions (e.g. maintaining an expected “pay-out ratio”); and (4) the size of the dividend with respect to the possibility of paying dividends in future bad years. In addition, the ability to expand or replace existing facilities should be considered.

21. Cash dividends are paid out of cash. A balance must exist in retained earnings to permit a legal distribution of profits, but having a balance in retained earnings does not ensure the ability to pay a dividend if the cash situation does not permit it.

22. A **cash dividend** is a distribution in cash while a **property dividend** is a distribution in assets other than cash. Any dividend not based on retained earnings is a **liquidating dividend.** A **share dividend** is the issuance of additional shares in a nonreciprocal exchange involving existing shareholders with no change in the par or stated value.

23. A share dividend results in the transfer from retained earnings to share capital and share premium of an amount equal to the market value of each share (if the dividend is less than 20–25%) or the par value of each share (if the dividend is greater than 20–25%). No formal journal entries are required for a share split, but a notation in the ledger accounts would be appropriate to show that the par value of the shares has changed.

24. (a) A share split effected in the form of a dividend is a distribution of corporate shares to present shareholders in proportion to each shareholder's current holdings and can be expected to cause a material decrease in the market value per share. **IFRS** specifies that a distribution in excess of 20% to 25% of the number of shares previously outstanding would cause a material decrease in the market value. This is a characteristic of a share split as opposed to a share dividend, but, for legal reasons, the term "dividend" must be used for this distribution. From an accounting viewpoint, it should be disclosed as a share split effected in the form of a dividend because it meets the accounting definition of a share split as explained above.

(b) The share split effected in the form of a dividend differs from an ordinary share dividend in the amount of retained earnings to be capitalized. An ordinary share dividend involves capitalizing (charging) retained earnings equal to the fair value of the shares distributed. A share split effected in the form of a dividend involves charging retained earnings for the par (stated) value of the additional shares issued.

Another distinction between a share dividend and a share split is that a share dividend usually involves distributing additional shares of the same class with the same par or stated value. A share split usually involves distributing additional shares of the same class but with a proportionate reduction in par or stated value. The aggregate par or stated value would then be the same before and after the share split.

(c) A declared but unissued share dividend should be classified as part of equity rather than as a liability in a statement of financial position. A share dividend affects only equity accounts; that is, retained earnings is decreased and share capital and share premium are increased. Thus, there is no debt to be paid, and, consequently, there is no severance of corporate assets when a share dividend is issued. Furthermore, share dividends declared can be revoked by a corporation's board of directors any time prior to issuance. Finally, the corporation usually will formally announce its intent to issue a specific number of additional shares, and these shares must be reserved for this purpose.

25. A partially liquidating dividend will be debited both to Retained Earnings and Share Premium. The portion of dividends that is a return of capital should be debited to Share Premium.

26. A property dividend is a nonreciprocal transfer of nonmonetary assets between an enterprise and its owners. A transfer of a nonmonetary asset to a shareholder or to another entity in a nonreciprocal transfer should be recorded at the fair value of the asset transferred, and a gain or loss should be recognized on the disposition of the asset.

27. Retained earnings are restricted because of legal or contractual restrictions, or the necessity to protect the working capital position.

28. Restrictions of retained earnings are best disclosed in a note to the financial statements. This allows a more complete explanation of the restriction.

29. No, Mary should not make that conclusion. While IFRS allows unrealized losses on non-trading equity investments to be reported under "Reserves", U.S. GAAP requires these losses to be reported as other comprehensive income. Specifically, unrealized losses are reported in the Accumulated Other Comprehensive Income (Loss) account under U.S. GAAP.

30. **Key similarities** between IFRS and U.S. GAAP for transactions related to equity pertain to (1) issuance of shares, (2) purchase of treasury shares, (3) declaration and payment of dividends, (4), the costs associated with issuing shares reduce the proceeds from the issuance and reduce contributed (paid-in) capital, and (5) the accounting for par, no par and no par shares with a stated value.

Major differences relate to terminology used, introduction of items such as revaluation surplus, and presentation of stockholder equity information. In addition, the accounting for treasury stock retirements differs between IFRS and U.S. GAAP. Under U.S. GAAP a company has the option of charging the excess of the cost of treasury stock over par value to (1) retained earnings, (2) allocate the difference between paid in capital and retained earnings, or (3) charge the entire amount to paid-in capital. Under IFRS, the excess may have to be charged to paid-in capital, depending on the original transaction related to the issuance of the stock. An IFRS/U.S. GAAP difference relates to the account Revaluation Surplus. Revaluation surplus arises under IFRS because of increases or decreases in property, plant and equipment, mineral resources, and intangible assets. This account is part of general reserves under IFRS and is not considered contributed capital.

31. It is likely that the statement of stockholders' equity and its presentation will be examined closely in the financial statement presentation project. In addition the options of how to present other comprehensive income under U.S. GAAP will change in any converged standard in this area.

***32.**

		Preference	Ordinary	Total
(a)	Current year's dividend, 7%	$ 7,000	$21,000[a]	$28,000
	Participating dividend of 9%	9,000	27,000	36,000
	Totals	$16,000	$48,000	$64,000

[a](see schedule below for computation of amounts)

The participating dividend was determined as follows:

Current year's dividend:		
Preference, 7% of $100,000 = $ 7,000		
Ordinary, 7% of $300,000 = 21,000		$28,000
Amount available for participation		
($64,000 – $28,000)		$36,000
Par value of stock that is to participate		
($100,000 + $300,000)		$400,000
Rate of participation		
($36,000 ÷ $400,000)		9%
Participating dividend:		
Preference, 9% of $100,000		$ 9,000
Ordinary, 9% of $300,000		27,000
Dividends		$36,000

(b)

	Preference	Ordinary	Total
Dividends in arrears, 7% of $100,000	$ 7,000		$ 7,000
Current year's dividend, 7%	7,000	$21,000	28,000
Participating dividend 7.25% ($29,000 ÷ $400,000)*	7,250	21,750	29,000
Totals	$21,250	$42,750	$64,000

*(The same type of schedule as shown in (a) could be used here)

(c)

	Preference	Ordinary	Total
Dividends in arrears ($100,000 X 7%) – $5,000	$2,000		$ 2,000
Current year's dividend, 7%	7,000		7,000
Remainder to common		$21,000	21,000
Totals	$9,000	$21,000	$30,000

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 15-1

Cash	4,500	
Share Capital—Ordinary (300 X €10)		3,000
Share Premium—Ordinary		1,500

BRIEF EXERCISE 15-2

(a) Cash	8,200	
Share Capital—Ordinary		8,200
(b) Cash	8,200	
Share Capital—Ordinary (600 X €2)		1,200
Share Premium—Ordinary		7,000

BRIEF EXERCISE 15-3

WILCO CORPORATION
Equity
December 31, 2010

Share Capital—Ordinary, €5 par value	€ 510,000
Share Premium—Ordinary	1,320,000
Retained earnings	2,340,000
Less: Treasury shares	(90,000)
Total equity	€4,080,000

BRIEF EXERCISE 15-4

Cash	13,500	
Share Capital—Preference (100 X $50)		5,000
Share Premium—Preference		3,100
Share Capital—Ordinary (300 X $10)		3,000
Share Premium—Ordinary		2,400

FV of ordinary (300 X $20)	$ 6,000
FV of preference (100 X $90)	9,000
Total FV	$15,000

BRIEF EXERCISE 15-4 (Continued)

Allocated to ordinary $\frac{\$6,000}{\$15,000}$ X \$13,500 = \$ 5,400

Allocated to preference $\frac{\$9,000}{\$15,000}$ X \$13,500 = <u>8,100</u>
<u>\$13,500</u>

BRIEF EXERCISE 15-5

Land	31,000	
Share Capital—Ordinary (3,000 X £5)		15,000
Share Premium—Ordinary		16,000

BRIEF EXERCISE 15-6

Cash (\$60,000 – \$1,500)	58,500	
Share Capital—Ordinary (2,000 X \$10)		20,000
Share Premium—Ordinary		38,500

BRIEF EXERCISE 15-7

7/1/10	Treasury Shares (100 X €87)	8,700	
	Cash		8,700
9/1/10	Cash (60 X €90)	5,400	
	Treasury Shares (60 X €87)		5,220
	Share Premium—Treasury		180
11/1/10	Cash (40 X €83)	3,320	
	Share Premium—Treasury	160	
	Treasury Shares (40 X €87)		3,480

BRIEF EXERCISE 15-8

8/1/10	Treasury Shares (200 X $80)	16,000	
	Cash		16,000
11/1/10	Cash (200 X $70)	14,000	
	Retained Earnings	2,000	
	Treasury Shares		16,000

BRIEF EXERCISE 15-9

Cash	61,500	
Share Capital—Preference (500 X €100)		50,000
Share Premium—Preference		11,500

BRIEF EXERCISE 15-10

Aug. 1	Retained Earnings (2,000,000 X $1)	2,000,000	
	Dividends Payable		2,000,000
Aug. 15	No entry.		
Sep. 9	Dividends Payable	2,000,000	
	Cash		2,000,000

BRIEF EXERCISE 15-11

Sep. 21	Equity Investments	325,000	
	Unrealized Holding Gain or Loss—OCI (R$1,200,000 – R$875,000)		325,000
	Retained Earnings (Property Dividends Declared)	1,200,000	
	Property Dividends Payable		1,200,000
Oct. 8	No entry.		
Oct. 23	Property Dividends Payable	1,200,000	
	Equity Investments		1,200,000

BRIEF EXERCISE 15-12

Apr. 20	Retained Earnings (¥500,000 – ¥125,000)	375,000	
	Share Premium—Ordinary	125,000	
	Dividends Payable		500,000
June 1	Dividends Payable	500,000	
	Cash		500,000

BRIEF EXERCISE 15-13

<u>Declaration Date.</u>

Retained Earnings	1,300,000	
Ordinary Share Dividend Distributable		200,000
Share Premium—Ordinary		1,100,000
(20,000* X $65 = $1,300,000; 20,000 X $10 = $200,000)		

*200,000 shares X 10%

<u>Distribution Date.</u>

Ordinary Share Dividend Distributable	200,000	
Share Capital—Ordinary		200,000

BRIEF EXERCISE 15-14

<u>Declaration Date.</u>

Retained Earnings	4,000,000	
Ordinary Share Dividend Distributable (400,000 X $10)		4,000,000

<u>Distribution Date.</u>

Ordinary Share Dividend Distributable	4,000,000	
Share Capital—Ordinary		4,000,000

*BRIEF EXERCISE 15-15

(a) Preference shareholders would receive $60,000 (6% X $1,000,000) and the remainder of $240,000 ($300,000 – $60,000) would be distributed to ordinary shareholders.

(b) Preference shareholders would receive $180,000 (6% X $1,000,000 X 3) and the remainder of $120,000 would be distributed to the ordinary shareholders.

SOLUTIONS TO EXERCISES

EXERCISE 15-1 (15–20 minutes)

(a)

Jan.	10	Cash (80,000 X €6)	480,000	
		Share Capital—Ordinary (80,000 X €3)		240,000
		Share Premium—Ordinary		240,000
Mar.	1	Organization Expense	35,000	
		Share Capital—Ordinary (5,000 X €3)		15,000
		Share Premium—Ordinary		20,000
July	1	Cash (30,000 X €8)	240,000	
		Share Capital—Ordinary (30,000 X €3)		90,000
		Share Premium—Ordinary (30,000 X €5)		150,000
Sept.	1	Cash (60,000 X €10)	600,000	
		Share Capital—Ordinary (60,000 X €3)		180,000
		Share Premium—Ordinary (60,000 X €7)		420,000

(b) If the shares have a stated value of €2 per share, the entries in (a) would be the same except for the euro amounts. For example, the Jan. 10 entry would include credits of €160,000 to Share Capital—Ordinary and €320,000 to Share Premium—Ordinary.

EXERCISE 15-2 (15–20 minutes)

Jan. 10	Cash (80,000 X $5)	400,000	
	Share Capital—Ordinary (80,000 X $2)		160,000
	Share Premium—Ordinary (80,000 X $3)		240,000
Mar. 1	Cash (5,000 X $108)	540,000	
	Share Capital—Preference (5,000 X $50)		250,000
	Share Premium—Preference (5,000 X $58)		290,000
April 1	Land	80,000	
	Share Capital—Ordinary (24,000 X $2)		48,000
	Share Premium—Ordinary ($80,000 – $48,000)		32,000
May 1	Cash (80,000 X $7)	560,000	
	Share Capital—Ordinary (80,000 X $2)		160,000
	Share Premium—Ordinary (80,000 X $5)		400,000
Aug. 1	Organization Expense	50,000	
	Share Capital—Ordinary (10,000 X $2)		20,000
	Share Premium—Ordinary ($50,000 – $20,000)		30,000
Sept. 1	Cash (10,000 X $9)	90,000	
	Share Capital—Ordinary (10,000 X $2)		20,000
	Share Premium—Ordinary (10,000 X $7)		70,000
Nov. 1	Cash (1,000 X $112)	112,000	
	Share Capital—Preference (1,000 X $50)		50,000
	Share Premium—Preference		

(1,000 X \$62)...	**62,000**

EXERCISE 15-3 (10–15 minutes)

(a)	Land ($60 X 25,000)	1,500,000	
	Treasury Shares ($48 X 25,000)		1,200,000
	Share Premium—Treasury		300,000

(b) One might use the cost of treasury shares. However, this is not a relevant measure of this economic event. Rather, it is a measure of a prior, unrelated event. The appraised value of the land is a reasonable alternative (if based on appropriate fair value estimation techniques). However, it is an appraisal as opposed to a market-determined price. The trading price of the shares is probably the best measure of fair value in this transaction.

EXERCISE 15-4 (20–25 minutes)

(a) (1)	Cash ($850 X 9,600)	8,160,000	
	Bonds Payable ($5,000,000 – $200,000*)		4,800,000
	Share Capital—Ordinary (100,000 X $5)		500,000
	Share Premium—Ordinary		2,860,000

*[$340,000 ($850 X 400) X $500/$850]

Assumes bonds are properly priced and issued at par; the residual attributed to share capital has a questionable measure of fair value.

Incremental method

Lump-sum receipt (9,600 X $850)	$8,160,000
Allocated to subordinated debenture (9,600 X $500)	(4,800,000)
Balance allocated to ordinary shares	$3,360,000

Computation of share capital and share premium

Balance allocated to ordinary shares	$3,360,000
Less: Share capital (10,000 X $5 X 10)	500,000
Share premium	$2,860,000

EXERCISE 15-4 (Continued)

Bond issue cost allocation

Total issue cost (400 X $850)	$ 340,000
Less: Amount allocated to bonds	200,000
Amount allocated to ordinary shares	$ 140,000

Investment banking costs 400 @ $850 = $340,000 allocate 5/8.5 to debentures and 3.5/8.5 to ordinary shares. Bond portion is bond issue costs; share capital portion is a reduction of share premium, which means that total contributed (paid-in) capital is $3,360,000 ($3,500,000 – $140,000).

(2) Cash	8,160,000	
Bonds Payable		4,533,333
Share Capital—Ordinary (100,000 X $5)		500,000
Share Premium—Ordinary		3,126,667

The allocation based on fair value for one unit is

Subordinated debenture	$500
Ordinary shares (10 shares X $40)	400
Total fair value	$900

Therefore 5/9 is allocated to the bonds and 4/9 to the ordinary shares.

$8,500,000 X (5/9) = $4,722,222 To Debentures
$8,500,000 X (4/9) = $3,777,778 To Ordinary Shares
$340,000 X (5/9) = $188,889
$340,000 X (4/9) = $151,111
Share Premium = $3,777,778 – $500,000 – $151,111
= $3,126,667

(b) One is not better than the other, but would depend on the relative reliability of the valuations for the shares and bonds. This question is presented to stimulate some thought and class discussion.

EXERCISE 15-5 (10–15 minutes)

(a)	Fair value of Ordinary Shares (500 X €168)...........		€ 84,000
	Fair value of Preference Shares (100 X €210).......		21,000
			€105,000
	Allocated to Ordinary Shares:		
	€84,000/€105,000 X €100,000..............................		€ 80,000
	Allocated to Preference Shares:		
	€21,000/€105,000 X €100,000..............................		20,000
	Total allocation..		€100,000
	Cash	100,000	
	Share Capital—Ordinary (500 X €10)..............		5,000
	Share Premium—Ordinary (€80,000 – €5,000)...		75,000
	Share Capital—Preference (100 X €100)		10,000
	Share Premium—Preference (€20,000 – €10,000).......................................		10,000
(b)	Lump-sum receipt		€100,000
	Allocated to ordinary (500 X €170)		(85,000)
	Balance allocated to preference		€ 15,000
	Cash	100,000	
	Share Capital—Ordinary..................................		5,000
	Share Premium—Ordinary (€85,000 – €5,000)...		80,000
	Share Capital—Preference..............................		10,000
	Share Premium—Preference (€15,000 – €10,000).......................................		5,000

EXERCISE 15-6 (25–30 minutes)

(a)	Cash [(5,000 X $45) – $7,000]	218,000	
	Share Capital—Ordinary (5,000 X $10)		50,000
	Share Premium—Ordinary.................................		168,000

EXERCISE 15-6 (Continued)

(b)	Land (1,000 X $46)	46,000	
	Share Capital—Ordinary (1,000 X $10)		10,000
	Share Premium—Ordinary ($46,000 – $10,000)		36,000

Note: The fair value of the shares ($46,000) is used to value the exchange because it is a more objective measure than the appraised value of the land ($50,000).

(c)	Treasury Shares (500 X $44)	22,000	
	Cash		22,000

EXERCISE 15-7 (15–20 minutes)

#	Assets	Liabilities	Equity	Share Premium	Retained Earnings	Net Income
1.	D	NE	D	NE	NE	NE
2.	I	NE	I	NE	D	NE
3.	I	NE	I	I	NE	NE

EXERCISE 15-8 (15–20 minutes)

(a) $1,000,000 X 6% = $60,000; $60,000 X 3 = $180,000. The cumulative dividend is disclosed in a note to the equity section; it is not reported as a liability.

(b)	Share Capital—Preference (3,000 X $100)	300,000	
	Share Capital—Ordinary (3,000 X 7 X $10)		210,000
	Share Premium—Ordinary		90,000

(c)	Preference shares, $100 par 6%, 10,000 shares issued	$1,000,000
	Share premium—preference (10,000 X $7)	70,000

EXERCISE 15-9 (15–20 minutes)

			Debit	Credit
May	2	Cash	192,000	
		Share Capital—Ordinary (12,000 X $10)		120,000
		Share Premium—Ordinary (12,000 X $6)		72,000
	10	Cash	600,000	
		Share Capital—Preference (10,000 X $30)		300,000
		Share Premium—Preference (10,000 X $30)		300,000
	15	Treasury Shares	14,000	
		Cash		14,000
	31	Cash	8,500	
		Treasury Shares (500 X $14)		7,000
		Share Premium—Treasury (500 X $3)		1,500

EXERCISE 15-10 (20–25 minutes)

(a) (1) The par value is $2.50. This amount is obtained from either of the following: 2011—$545 ÷ 218 or 2010—$540 ÷ 216.

(2) The cost of treasury shares was higher in 2011. The cost at December 31, 2011 was $42 per share ($1,428 ÷ 34) compared to the cost at December 31, 2010 of $34 per share ($918 ÷ 27).

(b) Equity (in millions of dollars)

Share capital—ordinary, $2.50 par value, 500,000,000 shares authorized, 218,000,000 shares issued, and 184,000,000 shares outstanding	$ 545
Share premium—ordinary	891
Retained earnings	7,167
Less: Cost of treasury shares (34,000,000 shares)	1,428
Total equity	$ 7,175

EXERCISE 15-11 (15–20 minutes)

Item	Assets	Liabilities	Equity	Share Premium	Retained Earnings	Net Income
1.	I	NE	I	NE	I	I
2.	NE	NE	NE	NE	NE	NE
3.	NE	I	D	NE	D	NE
4.	NE	NE	NE	NE	NE	NE
5.	D	NE	D	NE	D	D
6.	D	D	NE	NE	NE	NE
7.	NE	I	D	NE	D	D
8.	NE	NE	NE	I	D	NE
9.	NE	NE	NE	NE	NE	NE

EXERCISE 15-12 (10–15 minutes)

(a)	6/1	Retained Earnings...............................	6,000,000	
		Dividends Payable.....................		6,000,000
	6/14	No entry on date of record.		
	6/30	Dividends Payable..............................	6,000,000	
		Cash..		6,000,000

(b) If this were a liquidating dividend, the debit entry on the date of declaration would be to Share Premium rather than Retained Earnings.

EXERCISE 15-13 (10–15 minutes)

(a) No entry—simply a memorandum note indicating the number of shares has increased to 10 million and par value has been reduced from $10 to $5 per share.

(b)	Retained Earnings ($10 X 5,000,000)...............	50,000,000	
	Ordinary Share Dividend Distributable.....		50,000,000
	Ordinary Share Dividend Distributable..........	50,000,000	

Share Capital—Ordinary............................		50,000,000

EXERCISE 15-13 (Continued)

(c) Share dividends and splits serve the same function with regard to the securities markets. Both techniques allow the board of directors to increase the quantity of shares and reduce share prices into a desired "trading range."

For accounting purposes the 20%–25% rule reasonably views large share dividends as substantive share splits. In this case, it is necessary to capitalize par value with a share dividend because the number of shares is increased and the par value remains the same. Earnings are capitalized for purely procedural reasons.

EXERCISE 15-14 (10–12 minutes)

(a)	Retained Earnings (10,000 X €37)..................	370,000	
	Ordinary Share Dividend Distributable.....		100,000
	Share Premium—Ordinary		270,000
	Ordinary Share Dividend Distributable.........	100,000	
	Share Capital—Ordinary............................		100,000
(b)	Retained Earnings (200,000 X €10)...............	2,000,000	
	Ordinary Share Dividend Distributable.....		2,000,000
	Ordinary Share Dividend Distributable.........	2,000,000	
	Share Capital—Ordinary............................		2,000,000

(c) No entry, the par value becomes €5 and the number of shares outstanding increases to 400,000.

EXERCISE 15-15 (10–15 minutes)

(a)	Retained Earnings...	117,000	
	Ordinary Share Dividend Distributable		30,000
	Share Premium—Ordinary		87,000
	(60,000 shares X 5% X R39 = $117,000)		
	Ordinary Share Dividend Distributable	30,000	
	Share Capital—Ordinary................................		30,000

EXERCISE 15-15 (Continued)

(b) No entry; memorandum to indicate that par value is reduced to R2 and shares outstanding are now 300,000 (60,000 X 5).

(c)

January 5, 2011		
Debt Investments	35,000	
Unrealized Holding Gain or Loss—Income		35,000
Retained Earnings	125,000	
Property Dividends Payable		125,000
January 25, 2011		
Property Dividends Payable	125,000	
Debt Investments		125,000

EXERCISE 15-16 (5–10 minutes)

Total income since incorporation		₩287,000
Less: Total cash dividends paid	₩60,000	
Total value of share dividends	40,000	100,000
Current balance of retained earnings		₩187,000

The accumulated other comprehensive income is shown as part of equity; the gains on treasury share transactions are recorded as share premium.

EXERCISE 15-17 (20–25 minutes)

TELLER CORPORATION
Partial Statement of Financial Position
December 31, 2010

Equity		
Share capital—preference, €4 cumulative, par value €50 per share; authorized 60,000 shares, issued and outstanding 10,000 shares	€ 500,000	
Share capital—ordinary, par value €1 per share; authorized 600,000 shares, issued 200,000 shares, and outstanding 190,000 shares	200,000	€ 700,000
Share premium—Ordinary	1,000,000	
Share premium—Treasury	160,000	1,160,000
Retained earnings		201,000
Treasury shares, 10,000 shares at cost		(170,000)
Total equity		€1,891,000

EXERCISE 15-18 (30–35 minutes)

(a) 1.	Dividends Payable—Preference (2,000 X $8)	16,000	
	Dividends Payable—Ordinary (20,000 X $2)	40,000	
	Cash		56,000
2.	Treasury Shares	108,000	
	Cash (2,700 X $40)		108,000
3.	Land	30,000	
	Treasury Shares (700 X $40)		28,000
	Share Premium—Treasury		2,000
4.	Cash (500 X $105)	52,500	
	Share Capital—Preference (500 X $100)		50,000
	Share Premium—Preference		2,500

EXERCISE 15-18 (Continued)

5.	Retained Earnings (1,800* X $45)	81,000	
	Ordinary Share Dividend Distributable (1,800 X $5)		9,000
	Share Premium—Ordinary		72,000
	*(20,000 – 2,700 + 700 = 18,000; 18,000 X 10%)		
6.	Ordinary Share Dividend Distributable	9,000	
	Share Capital—Ordinary		9,000
7.	Retained Earnings	59,600	
	Dividends Payable—Preference (2,500 X $8)		20,000
	Dividends Payable—Ordinary (19,800* X $2)		39,600
	*(18,000 + 1,800)		

(b)

ELIZABETH COMPANY
Partial Statement of Financial Position
December 31, 2011

Equity		
Share capital—preference shares, 8%, $100 par, 10,000 shares authorized, 2,500 shares issued and outstanding	$250,000	
Share capital—ordinary stock, $5 par, 100,000 shares authorized, 21,800 shares issued, 19,800 shares outstanding	109,000	$ 359,000
Share premium		201,500
Retained earnings		639,400
Treasury shares (2,000 ordinary shares)		(80,000)
Total equity		$1,119,900

EXERCISE 15-18 (Continued)

Computations:

Preference shares	$200,000 + $50,000 = $250,000
Ordinary shares	$100,000 + $ 9,000 = $109,000
Share premium:	$125,000 + $2,000 + $2,500 + $72,000 = $201,500

Retained earnings: $450,000 – $81,000 – $59,600 + $330,000 = $639,400

Treasury shares $108,000 – $28,000 = $80,000

EXERCISE 15-19 (20–25 minutes)

(a) Wilder Company is the more profitable in terms of rate of return on total assets. This may be shown as follows:

Wilder Company $\frac{\$720{,}000}{\$4{,}200{,}000} = 17.14\%$

Ingalls Company $\frac{\$648{,}000}{\$4{,}200{,}000} = 15.43\%$

Note to Instructor: These returns are based on net income related to total assets, where the ending amount of total assets is considered representative. If the rate of return on total assets uses net income before interest but after taxes in the numerator, the rates of return on total assets are the same as shown below:

Wilder Company $\frac{\$720{,}000}{\$4{,}200{,}000} = 17.14\%$

Ingalls Company $\frac{\$648{,}000 + \$120{,}000 - \$48{,}000}{\$4{,}200{,}000} = \frac{\$720{,}000}{\$4{,}200{,}000}$

$= 17.14\%$

EXERCISE 15-19 (Continued)

(b) Ingalls Company is the more profitable in terms of return on ordinary share equity. This may be shown as follows:

Ingalls Company $\dfrac{\$648,000}{\$2,700,000} = 24\%$

Wilder Company $\dfrac{\$720,000}{\$3,600,000} = 20\%$

(Note to instructor: To explain why the difference in rate of return on assets and rate of return on ordinary share equity occurs, the following schedule might be provided to the student.)

Ingalls Company

Funds Supplied	Funds Supplied	Rate of Return on Funds at 17.14%*	Cost of Funds	Accruing to Ordinary Shares
Non-Current	$1,200,000	$205,680	$72,000*	$133,680
Current liabilities	300,000	51,420	0	51,420
Share capital	2,000,000	342,800	0	342,800
Retained earnings	700,000	119,980	0	119,980
	$4,200,000	$719,880	$72,000	$647,880

*Determined in part (a), 17.14%

**The cost of funds is the interest of $120,000 ($1,200,000 X 10%). This interest cost must be reduced by the tax savings (40%) related to the interest.

The schedule indicates that the income earned on the total assets (before interest cost) was $719,880. The interest cost (net of tax) of this income was $72,000, which indicates a net return to the ordinary share equity of $647,880.

(c) The Ingalls Company earned a net income per share of $6.48 ($648,000 ÷ 100,000) while Wilder Company had an income per share of $4.97 ($720,000 ÷ 145,000). Ingalls Company has borrowed a substantial portion of its assets at a cost of 10% and has used these assets to earn a return in excess of 10%. The excess earned on the borrowed assets represents additional income for the shareholders and has resulted in the higher income per share. Due to the debt financing, Ingalls has fewer shares outstanding.

EXERCISE 15-19 (Continued)

(d) Yes, from the point of view of net income it is advantageous for the shareholders of Ingalls Company to have non-current liabilities outstanding. The assets obtained from incurrence of this debt are earning a higher return than their cost to Ingalls Company.

(e) Book value per share.

Ingalls Company $\dfrac{\$2{,}000{,}000 + \$700{,}000}{100{,}000} = \$27.00$

Wilder Company $\dfrac{\$2{,}900{,}000 + \$700{,}000}{145{,}000} = \$24.83$

EXERCISE 15-20 (15 minutes)

(a) Rate of return on ordinary share equity:

$$\frac{€213{,}718}{€875{,}000 + €575{,}000} = \frac{€213{,}718}{€1{,}450{,}000} = 14.7\%$$

Rate of interest paid on bonds payable: $\dfrac{€135{,}000}{€1{,}500{,}000} = 9\%$

(b) DeVries Plastics, Inc. is trading on the equity successfully, since its return on ordinary share equity is greater than interest paid on bonds.

<u>Note:</u> Some analysts use after-tax interest expense to compute the bond rate.

*EXERCISE 15-21 (10–15 minutes)

	Preference	Ordinary	Total
(a) Preference shares are non-cumulative,			
Non-participating (2,000 X $100 X 6%)	$12,000		
Remainder ($70,000 – $12,000)		$58,000	$70,000
(b) Preference shares are cumulative,			
Non-participating ($12,000 X 3)	$36,000		
Remainder ($70,000 – $36,000)		$34,000	$70,000

*EXERCISE 15-21 (Continued)

	Preference	Ordinary	Total
(c) Preference shares are cumulative, participating	$44,444	$25,556	$70,000

The computation for these amounts is as follows:

	Preference	Ordinary	Total
Dividends in arrears (2 X $12,000)	$24,000		$24,000
Current dividend	12,000		12,000
Pro-rata share to ordinary (5,000 X $50 X 6%)		$15,000	15,000
Balance dividend pro-rata	8,444	10,556	19,000*
	$44,444	$25,556	$70,000

*Additional amount available for participation ($70,000 – $24,000 – $12,000 – $15,000)		19,000
Par value of shares that are to participate		
Preference (2,000 X $100)	$200,000	
Ordinary (5,000 X $50)	250,000	450,000
Rate of participation		
$19,000 ÷ $450,000		4.2222%
Participating dividend		
Preference, 4.2222% X $200,000		$ 8,444
Ordinary, 4.2222% X $250,000		10,556
		$19,000

Note to instructor: Another way to compute the participating amount is as follows:

Preference $\frac{\$200,000}{\$450,000}$ X $19,000 $ 8,444

Ordinary $\frac{\$250,000}{\$450,000}$ X $19,000 10,556

$19,000

*EXERCISE 15-22 (10–15 minutes)

(a)

	Preference	Ordinary	Total
Preference shares are cumulative and fully participating	$26,000	$240,000	$266,000

The computation for these amounts is as follows:

	Preference	Ordinary	Total
Dividends in arrears			
(5% X $10 X 20,000)	$10,000		$ 10,000
Current dividend			
Preference	10,000		
Ordinary (5% X $100 X 30,000)		$150,000	160,000
Balance dividend pro-rata	6,000	90,000	96,000*
	$26,000	$240,000	$266,000

*Additional amount available for participation	
($266,000 – $10,000 – $160,000)	$ 96,000
Par value of shares that are to participate	
($200,000 + $3,000,000)	$3,200,000
Rate of participation	
$96,000 ÷ $3,200,000	3%
Participating dividend	
Preference, 3% X $200,000	$ 6,000
Ordinary, 3% X $3,000,000	90,000
	$ 96,000

Preference $\frac{\$200,000}{\$3,200,000}$ X $96,000 $ 6,000

Ordinary $\frac{\$3,000,000}{\$3,200,000}$ X $96,000 90,000

$ 96,000

*EXERCISE 15-22 (Continued)

Note to instructor: Another way to compute the participating amount is as follows:

(b)	Preference	Ordinary	Total
Preference shares are non-cumulative and non-participating	$10,000	$256,000	$266,000

The computation for these amounts is as follows:

Current dividend (preferred) (5% X $10 X 20,000)	$ 10,000
Remainder to ordinary ($266,000 – $10,000)	256,000
	$266,000

(c)	Preference	Ordinary	Total
Preference shares are non-cumulative and participating in distributions in excess of 7%	$12,875	$253,125	$266,000

The computation for these amounts is as follows:

	Preference	Ordinary	Total
Current year			
Preference (5% X $10 X 20,000)	$10,000		$ 10,000
Ordinary (5% X $3,000,000)		$150,000	150,000
Additional 2% to ordinary (2% X $3,000,000)		60,000	60,000
Balance dividend pro-rata	2,875	43,125	46,000*
	$12,875	$253,125	$266,000

*Additional amount available for participation ($266,000 – $10,000 – $150,000 – $60,000)	$ 46,000
Par value of shares that are to participate ($200,000 + $3,000,000)	$3,200,000
Rate of participation $46,000 ÷ $3,200,000	1.4375%
Participating dividend	
Preference 1.4375% X $200,000	$ 2,875
Ordinary 1.4375% X $3,000,000	43,125
	$ 46,000

*EXERCISE 15-23 (10–15 minutes)

Assumptions

		(a) Preference, non-cumulative, and non-participating		(b) Preference, cumulative, and fully participating	
Year	Paid-out	Preference	Ordinary	Preference	Ordinary
2009	$12,000	$4.80	–0–	$ 4.80	–0–
2010	$26,000	$6.00	$ .73	$ 7.20	$ .53
2011	$52,000	$6.00	$2.47	$13.00	$1.30
2012	$76,000	$6.00	$4.07	$19.00	$1.90

The computations for part (a) are as follows:

2009

Dividends paid	$12,000	
Amount due preference (2,500 X $100 X 6%)	$15,000	
Preference per share ($12,000 ÷ 2,500)		$4.80
Ordinary per share		–0–

2010

Dividends paid	$26,000	
Amount due preference	15,000	
Amount due ordinary	$11,000	
Preference per share ($15,000 ÷ 2,500)		$6.00
Ordinary per share ($11,000 ÷ 15,000)		$ .73

2011

Dividends paid	$52,000	
Amount due preference	15,000	
Amount due ordinary	$37,000	
Preference per share ($15,000 ÷ 2,500)		$6.00
Ordinary per share ($37,000 ÷ 15,000)		$2.47

***EXERCISE 15-23 (Continued)**

2012

Dividends paid	$76,000	
Amount due preference	15,000	
Amount due ordinary	$61,000	
Preference per share ($15,000 ÷ 2,500)		$6.00
Ordinary per share ($61,000 ÷ 15,000)		$4.07

The computations for part (b) are as follows:

2009

Dividends paid	$12,000	
Amount due preference (2,500 X $100 X 6%)	$15,000	
Preference per share ($12,000 ÷ 2,500)		$4.80
Ordinary per share		–0–

2010

Dividends paid	$26,000	
Amount due preference		
In arrears ($15,000 – $12,000)	3,000	
Current	15,000	
	$18,000	
Amount due ordinary ($26,000 – $18,000)	$ 8,000	
Preference per share ($18,000 ÷ 2,500)		$7.20
Ordinary per share ($8,000 ÷ 15,000)		$ .53

*EXERCISE 15-23 (Continued)

	2011	
Dividends paid	$52,000	
Amount due preference		
Current (2,500 X $100 X 6%)................	$15,000	
Amount due ordinary		
Current (15,000 X $10 X 6%)................	$ 9,000	
Amount available for participation		
($52,000 – $15,000 – $9,000)................		$ 28,000
Par value of shares that are to participate		
($250,000 + $150,000)..........................		$400,000
Rate of participation		
$28,000 ÷ $400,000		7%
Participating dividend		
Preference (7% X $250,000)		$ 17,500
Ordinary (7% X $150,000)		$ 10,500

Total amount per share—Preference		
Current	$15,000	
Participation	17,500	
	$32,500 ÷ 2,500	$13.00
Total amount per share—Ordinary		
Current	$ 9,000	
Participation	10,500	
	$19,500 ÷ 15,000	$ 1.30

*EXERCISE 15-23 (Continued)

		2012	
Dividends paid		$76,000	
Amount due preference			
Current (2,500 X $100 X 6%)		$15,000	
Amount due ordinary			
Current (15,000 X $10 X 6%)		$ 9,000	
Amount available for participation			
($76,000 – $15,000 – $9,000)			$ 52,000
Par value that is to participate			
($250,000 + $150,000)			$400,000
Rate of participation			
$52,000 ÷ $400,000			13%
Participating dividend			
Preference (13% X $250,000)			$ 32,500
Ordinary (13% X $150,000)			$ 19,500
Total amount per share—Preference			
Current	$15,000		
Participation	32,500		
	$47,500 ÷ 2,500		$19.00
Total amount per share—Ordinary			
Current	$ 9,000		
Participation	19,500		
	$28,500 ÷ 15,000		$ 1.90

*EXERCISE 15-24 (10–15 minutes)

(a)

	Preference	Ordinary
Equity		
Preference shares	$500,000	
Ordinary shares		$ 750,000
Retained earnings		
Dividends in arrears (3 years at 6%)	90,000	
Remainder to ordinary*		310,000
	$590,000	$1,060,000
Shares outstanding	750,000	
Book value per share		
($1,060,000 ÷ 750,000)	$1.41	
*Balance in retained earnings		
($700,000 – $40,000 – $260,000)		$ 400,000
Less: Dividends to preference		(90,000)
Available to ordinary		$ 310,000

(b)

Equity		
Preference share		$ 500,000
Liquidating premium		30,000
Ordinary shares	$ 750,000	
Retained earnings		
Dividends in arrears (3 years at 6%)		$ 90,000
Remainder to ordinary*	280,000	
	$1,030,000	$ 620,000
Shares outstanding	750,000	
Book value per share		
($1,030,000 ÷ 750,000)	$1.37	
*Balance in retained earnings		
($700,000 – $40,000 – $260,000)		$400,000
Less: Liquidating premium to preference		(30,000)
Dividends to preference		(90,000)
Available to ordinary		$280,000

TIME AND PURPOSE OF PROBLEMS

Problem 15-1 (Time 50–60 minutes)
Purpose—to provide the student with an understanding of the necessary entries to properly account for a corporation's share transactions. This problem involves such concepts as shares sold for cash, noncash stock transactions, and declaration and distribution of share dividends. The student is required to prepare the respective journal entries and the equity section of the statement of financial position to reflect these transactions.

Problem 15-2 (Time 25–35 minutes)
Purpose—to provide the student with an opportunity to record the acquisition of treasury shares and its sale at three different prices. In addition, an equity section of the statement of financial position must be prepared.

Problem 15-3 (Time 25–30 minutes)
Purpose—to provide the student with an opportunity to record seven different transactions involving share issuances, reacquisitions, and dividend payments. Throughout the problem the student needs to keep track of the shares outstanding.

Problem 15-4 (Time 20–30 minutes)
Purpose—to provide the student with an understanding of the necessary entries to properly account for a corporation's share transactions. This problem involves such concepts as a lump-sum sale of capital shares and a non-cash stock exchange. The student is required to prepare the journal entries to reflect these transactions.

Problem 15-5 (Time 30–40 minutes)
Purpose—to provide the student with an understanding of the proper entries to reflect the reacquisition, and reissuance of a corporation's shares. The student is required to record these treasury share transactions under the cost method, assuming the FIFO method for purchase and sale purposes.

Problem 15-6 (Time 30–40 minutes)
Purpose—to provide the student with an understanding of the necessary entries to properly account for a corporation's share transactions. This problem involves such concepts as the reacquisition, and reissuance of shares; plus a declaration and payment of a cash dividend. The student is required to prepare the respective journal entries and the equity section of the statement of financial position to reflect these transactions.

Problem 15-7 (Time 15–20 minutes)
Purpose—to provide the student with an understanding of the proper accounting for the declaration and payment of cash dividends on both preference and ordinary shares. This problem also involves a dividend arrearage on preference stock, which will be satisfied by the issuance of treasury shares. The student is required to prepare the necessary journal entries for the dividend declaration and payment, assuming that they occur simultaneously.

Problem 15-8 (Time 20–25 minutes)
Purpose—to provide the student with an understanding of the accounting effects related to share dividends and share splits. The student is required to analyze their effect on total assets, share capital—ordinary, share premium—ordinary, retained earnings, and total equity.

Problem 15-9 (Time 20–25 minutes)
Purpose—to provide the student with an understanding of the effect which a series of transactions involving such items as the issuance and reacquisition of ordinary and preference shares, and a share dividend, have on the company's equity accounts. The student is required to prepare the equity section of the statement of financial position in proper form reflecting the above transactions.

Time and Purpose of Problems (Continued)

Problem 15-10 (Time 35–45 minutes)
Purpose—to provide the student with an understanding of the differences between a share dividend and a share split. Acting as a financial advisor to the Board of Directors, the student must report on each option and make a recommendation.

Problem 15-11 (Time 25–35 minutes)
Purpose—to provide the student with an understanding of the proper accounting for the declaration and payment of both a cash and share dividend. The student is required to prepare both the necessary journal entries to record cash and share dividends and the equity section of the statement of financial position, including a note to the financial statements setting forth the basis of the accounting for the share dividend.

Problem 15-12 (Time 35–45 minutes)
Purpose—to provide the student a comprehensive problem involving all facets of the equity section. The student must prepare the equity section of the statement of financial position, analyzing and classifying a dozen different transactions to come up with proper accounts and amounts. A good review of Chapter 15.

SOLUTIONS TO PROBLEMS

PROBLEM 15-1

(a)

January 11		
Cash (20,000 X $16)	320,000	
Share Capital—Ordinary (20,000 X $10)		200,000
Share Premium—Ordinary		120,000
February 1		
Machinery	50,000	
Factory Building	160,000	
Land	270,000	
Share Capital—Preference (4,000 X $100)		400,000
Share Premium—Preference		80,000
July 29		
Treasury Shares (1,800 X $17)	30,600	
Cash		30,600
August 10		
Cash (1,800 X $14)	25,200	
Retained Earnings (1,800 X $3)	5,400*	
Treasury Shares		30,600

*(The debit is made to Retained Earnings because no Share Premium—Treasury exists.)

PROBLEM 15-1 (Continued)

December 31		
Retained Earnings	37,000	
Cash Dividend Payable—Ordinary		5,000*
Cash Dividend Payable—Preference		32,000**

*Ordinary Share Cash Dividend:

Ordinary shares outstanding	20,000
Ordinary cash dividend	X $.25
	$5,000

**(4,000 X 100 X 8%)

December 31		
Income Summary	175,700	
Retained Earnings		175,700

(b)

PHELPS CORPORATION
Partial Statement of Financial Position
December 31, 2010

Equity		
Share capital preference— par value $100 per share, 8% cumulative and nonparticipating, 5,000 shares authorized, 4,000 shares issued and outstanding	$400,000	
Share capital—ordinary— par value $10 per share, 50,000 shares authorized, 20,000 shares issued and outstanding	200,000	$600,000
Share Premium—Preference	80,000	
Share Premium—Ordinary	120,000	200,000
Retained earnings		133,300*
Total equity		$933,300

*($175,700 – $5,400 – $37,000)

PROBLEM 15-2

(a)

Feb. 1	Treasury Shares (€19 X 2,000)	38,000	
	Cash		38,000
Mar. 1	Cash (€17 X 800)	13,600	
	Retained Earnings (€2 X 800)	1,600	
	Treasury Shares (€19 X 800)		15,200
Mar. 18	Cash (€14 X 500)	7,000	
	Retained Earnings (€5 X 500)	2,500	
	Treasury Shares (€19 X 500)		9,500
Apr. 22	Cash (€20 X 600)	12,000	
	Treasury Shares (€19 X 600)		11,400
	Share Premium—Treasury		600

(b)

CLEMSON COMPANY
Partial Statement of Financial Position
April 30, 2010

Equity		
Share capital—ordinary, €5 par value, 20,000 shares issued, 19,900 shares outstanding		€100,000
Share premium—ordinary	€300,000	
Share premium—treasury	600	300,600
Retained earnings*		445,900
		846,500
Less: Treasury shares (100 shares)**		1,900
Total equity		€844,600

*Retained earnings (beginning balance)	€320,000
March 1 reissuance	(1,600)
March 18 reissuance	(2,500)
Net income for period	130,000
Retained earnings (ending balance)	€445,900

**Treasury shares (beginning balance)	€ 0
February 1 purchase (2,000 shares)	38,000
March 1 sale (800 shares)	(15,200)
March 18 sale (500 shares)	(9,500)
April 12 sale (600 shares)	(11,400)
Treasury shares (ending balance)	€ 1,900

PROBLEM 15-3

HATCH COMPANY
Partial Statement of Financial Position
December 31, 2010

Equity		
Share capital—preference, $20 par, 8%, 180,000 shares issued and outstanding	$ 3,600,000	
Share capital—ordinary, $2.50 par, 4,100,000 shares issued, 4,080,000 shares outstanding	10,250,000	13,850,000
Share premium—preference	$ 260,000	
Share premium—ordinary	27,750,000	
Share premium—treasury	10,000	28,020,000
Retained earnings		4,272,000
Treasury shares (20,000 ordinary shares)		(200,000)
Total equity		$45,942,000

Supporting balances are indicated in the following T-Accounts.

Share Capital—Preference

	Bal.	3,000,000
	1.	600,000
		3,600,000

Share Premium—Ordinary

	Bal.	27,000,000
	4.	750,000
		27,750,000

PROBLEM 15-3 (Continued)

Share Capital—Ordinary

		Bal.	10,000,000
		3.	250,000
			10,250,000

Retained Earnings

		Bal.	4,500,000
8.	288,000	10.	2,100,000
9.	2,040,000		
			4,272,000

Share Premium—Preference

		Bal.	200,000
		2.	60,000
			260,000

Treasury Shares

5.	300,000	6.	100,000
	200,000		

Share Premium—Treasury

		7.	10,000
			10,000

1.	Jan.	1	30,000 X $20
2.	Jan.	1	30,000 X $2
3.	Feb.	1	50,000 X $5
4.	Feb.	1	50,000 X $15
5.	July	1	30,000 X $10
6.	Sept.	15	10,000 X $10
7.	Sept.	15	10,000 X $1
8.	Dec.	31	3,600,000 X 8%
9.	Dec.	31	4,080,000* X 50¢
10.	Dec.	31	Net income

*[(2,000,000 + 50,000) X 2] – 30,000 + 10,000

PROBLEM 15-4

-1-

Cash	**10,000**	
Bonds Payable		**9,894**
Share Capital—Preference		**50**
Share Premium—Preference (€106 – €50)		**56**

-2-

Machinery (500 X €16)	**8,000**	
Share Capital—Ordinary		**5,000**
Share Premium—Ordinary		**3,000**

(Assuming the shares are regularly traded, the value of the shares would be used.) If the shares are not regularly traded, the machinery would be recorded at its estimated fair value.

-3-

Cash	**10,800**	
Share Capital—Preference		**5,000**
Share Premium—Preference (€5,974 – €5,000)		**974**
Share Capital—Ordinary		**3,750**
Share Premium—Ordinary (€4,826 – €3,750)		**1,076**

Fair value of ordinary (375 X €14)	**€ 5,250**
Fair value of preference (100 X €65)	**6,500**
Aggregate	**€11,750**

Allocated to ordinary: $\frac{€5,250}{€11,750}$ **X €10,800 = € 4,826**

Allocated to preference: $\frac{€6,500}{€11,750}$ **X €10,800 = 5,974**

Total allocated **€10,800**

PROBLEM 15-4 (Continued)

-4-

Furniture and Fixtures	6,500	
Share Capital—Preference.......................................		2,500
Share Premium—Preference (€3,300 – €2,500)		800
Share Capital—Ordinary		2,000
Share Premium—Ordinary (€3,200 – €2,000)...........		1,200

Fair value of furniture and equipment	€6,500
Less: Fair value of ordinary shares (200 X €16)	3,200
Total value assigned to preference shares	€3,300

PROBLEM 15-5

(a)	Treasury Shares (380 X £40)	15,200	
	Cash		15,200
(b)	Treasury Shares (300 X £45)	13,500	
	Cash		13,500
(c)	Cash (350 X £42)	14,700	
	Treasury Shares (350 X £40)		14,000
	Share Premium—Treasury (350 X £2)		700
(d)	Cash (110 X £38)	4,180	
	Share Premium—Treasury	620	
	Treasury Shares		4,800*

*30 shares purchased at £40 = £1,200
80 shares purchased at £45 = 3,600
Cost of treasury shares sold using FIFO = £4,800

PROBLEM 15-6

(a)

-1-

Treasury Shares (280 X $97)	27,160	
Cash		27,160

-2-

Retained Earnings	90,400	
Dividends Payable [(4,800 – 280) X $20 = $90,400]		90,400

-3-

Dividends Payable	90,400	
Cash		90,400

-4-

Cash (280 X $102)	28,560	
Treasury Shares		27,160
Share Premium—Treasury (280 X $5)		1,400

-5-

Treasury Shares (500 X $105)	52,500	
Cash		52,500

-6-

Cash (350 X $96)	33,600	
Share Premium—Treasury	1,400	
Retained Earnings	1,750	
Treasury Shares (350 X $105)		36,750

PROBLEM 15-6 (Continued)

(b)

WASHINGTON COMPANY
Partial Statement of Financial Position
December 31, 2011

Equity	
Share capital—ordinary, $100 par value, authorized 8,000 shares; issued 4,800 shares, 4,650 shares outstanding	$480,000
Retained earnings (restricted in the amount of $15,750 by the acquisition of treasury shares)	295,850*
Treasury shares (150 shares)................................	(15,750)**
Total equity..	$760,100

*($294,000 – $90,400 + $94,000 – $1,750)

**($52,500 – $36,750)

PROBLEM 15-7

(a) **For preference dividends in arrears:**

Retained Earnings	18,000	
Treasury Shares		18,000*

*1,500 treasury shares issued as dividend
1,500 X $12 = $18,000

For 6% preference current year dividend:

Retained Earnings	18,000	
Cash		18,000*

*(6% X $300,000)

For $.30 per share ordinary dividend:

Retained Earnings	89,610	
Cash		89,610*

*Since all preference dividends must be paid before the ordinary dividend, outstanding ordinary shares include—

As of Dec. 31, 2010 (300,000 – 2,800)	297,200	shares
Preference distribution	1,500	shares
	298,700	shares
Ordinary dividend	.30	/share
Amount of ordinary cash dividend	$ 89,610	

(b) The suggested cash dividend could be paid even if the jurisdiction did restrict the retained earnings balance in the amount of the cost of treasury shares. Total dividends would be $125,160,* which is adequately covered by the cash balance. The retained earnings balance, after adding the 2011 net income (estimated at $77,000), is sufficient to cover the dividends.**

PROBLEM 15-7 (Continued)

*Preference dividends in arrears (6% X $300,000) ...	$ 18,000
Current preference dividend (6% X $300,000)	18,000
Ordinary dividend ($.30 X 297,200)	89,160
Total cash dividend	$125,160

**Beginning balance	$105,000
Estimated net income	77,000
Total balance available	182,000
If restricted by cost of treasury shares	(33,600)
Available to pay dividends	$148,400

PROBLEM 15-8

Transactions:

(a) Assuming Myers Co. declares and pays a €.10 per share cash dividend.
- **(1) Total assets—decrease €4,000 [(€20,000 ÷ €5) X €1]**
- **(2) Share capital—ordinary—no effect**
- **(3) Share premium—ordinary—no effect**
- **(4) Retained earnings—decrease €4,000**
- **(5) Total equity—decrease €4,000**

(b) Myers declares and issues a 10% share dividend when the market price of the stock is €14.
- **(1) Total assets—no effect**
- **(2) Share capital—ordinary—increase €2,000 (4,000 X 10%) X €5**
- **(3) Share premium—ordinary—increase €3,600 (400 X €14) – €2,000**
- **(4) Retained earnings—decrease €5,600 (€14 X 400)**
- **(5) Total equity—no effect**

(c) Myers declares and issues a 30% share dividend when the market price of the stock is €15 per share.
- **(1) Total assets—no effect**
- **(2) Share capital—ordinary—increase €6,000 (4,000 X 30%) X €5**
- **(3) Share premium—ordinary—no effect**
- **(4) Retained earnings—decrease €6,000**
- **(5) Total equity—no effect**

(d) Myers declares and distributes a property dividend
- **(1) Total assets—decrease €14,000 (2,000 X €7)— €6,000 gain less €20,000 dividend.**
- **(2) Share capital—ordinary—no effect**
- **(3) Share premium—ordinary—no effect**
- **(4) Retained earnings—decrease €14,000—€6,000 gain less €20,000 dividend.**
- **(5) Total equity—decrease €14,000**

PROBLEM 15-8 (Continued)

Note:
The journal entries made for the above transaction are:

Investments in ABC Stock (€10 – €7) X 2,000	6,000	
Gain on Appreciation of Securities		6,000
(To record increase in value of securities to be issued)		
Retained Earnings (€10 X 2,000)	20,000	
Investments in ABC Stock		20,000
(To record distribution of property dividend)		

(e) Myers declares a 2-for-1 share split

(1) Total assets—no effect
(2) Share capital—ordinary—no effect
(3) Share premium—ordinary—no effect
(4) Retained earnings—no effect
(5) Total equity—no effect

PROBLEM 15-9

VICARIO CORPORATION
Partial Statement of Financial Position
December 31, 2012

Equity		
Share capital—preference, $100 par value 10,000 shares authorized, 5,000 shares issued & outstanding	$500,000	
Share capital—ordinary, $50 par value 15,000 shares authorized, 8,000 shares issued 7,700 shares outstanding	400,000	$900,000
Share premium—preference	65,000	
Share premium—ordinary	59,000*	
Share premium—treasury (preference)	4,700	128,700
Retained earnings		237,400**
Less: Treasury shares (300 shares—ordinary)		19,200
Total equity		$1,246,900

*[($57 – $50) X 7,000 + ($60 – $50) X 1,000]

**$610,000 – $312,600 – ($60 X 1,000 shares)

PROBLEM 15-10

To: Oregon Inc. Board of Directors

From: Good Student, Financial Advisor

Date: Today

Subject: Report on the effects of a share dividend and a share split

INTRODUCTION

As financial advisor to the Board of Directors for Oregon Inc., I have been asked to report on the effects of the following options for creating interest in Oregon Inc. shares: a 20% share dividend, a 100% share dividend, and a 2-for-1 share split. The board wishes to maintain equity as it presently appears on the most recent statement of financial position. The Board also wishes to generate interest in share purchases, and the current market value of the shares ($110 per share) may be discouraging potential investors. Finally, the Board thinks that a cash dividend at this point would be unwise.

RECOMMENDATION

In order to meet the needs of Oregon Inc., the board should choose a 2-for-1 share split. The share split is the only option which would not change the dollar balances in the equity section of the company's statement of financial position.

DISCUSSION OF OPTIONS

The three above-mentioned options would all result in an increased number of ordinary shares outstanding. Because the shares would be distributed on a pro rata basis to current shareholders, each shareholder of record would maintain his/her proportion of ownership after the declaration. All three options would probably generate significant interest in the shares.

PROBLEM 15-10 (Continued)

A 20% SHARE DIVIDEND

This option would increase the shares outstanding by 20 percent, which translates into 800,000 additional shares of $10 par value.

The problem with this type of share dividend is that IFRS requires these shares to be accounted for at their current fair value if it significantly exceeds par.

The following journal entry must be made to record this dividend.

Retained Earnings ($110 X 800,000)	88,000,000	
Ordinary Share Dividend Distributable........		8,000,000
Share Premium—Ordinary............................		80,000,000

Although the Ordinary Share Dividend Distributable and the Share Premium accounts increase, Retained Earnings decreases dramatically. This reduction in Retained Earnings may hinder Oregon Inc.'s success with the subsequent share offer.

A 100% SHARE DIVIDEND

This option would double the number of $10 par value ordinary shares currently issued and outstanding. Because this type of dividend is considered, in substance, a share split, the shares do not have to be accounted for at fair value. Instead, Retained Earnings is reduced only by the par value of the additional shares, while Ordinary Share Dividend Distributable and, later, Share Capital—Ordinary are increased for that same amount. However, when 4,000,000 shares are already issued and outstanding, the reduction in Retained Earnings reflecting the share dividend is still great: $40,000,000. In addition, no increase in any Share Premium account occurs.

The following journal entry would be made to record the declaration of this dividend:

Retained Earnings ($10 X 4,000,000)...................	40,000,000	
Ordinary Share Dividend Distributable........		40,000,000

PROBLEM 15-10 (Continued)

A 2-FOR-1 SHARE SPLIT

This option doubles the number of shares issued and outstanding; however, it also cuts the par value per share in half. No accounting treatment beyond a memorandum entry is required for the split because the effect of splitting the par value cancels out the effect of doubling the number of shares. Therefore, Retained Earnings remains unchanged as does the Share Capital—Ordinary and Share Premium—Ordinary accounts. In addition, the decreased market value will encourage investors who might otherwise consider the shares too expensive.

CONCLUSION

To generate the greatest interest in Oregon Inc. shares while maintaining the present balances in the equity section of the statement of financial position, you should opt for the 2-for-1 share split.

PROBLEM 15-11

(a)

May 5, 2010

Retained Earnings	1,800,000	
Dividends Payable		1,800,000
(Declaration of cash dividend of $0.60 per share on 3,000,000 shares)		

June 30, 2010

Dividends Payable	1,800,000	
Cash		1,800,000

(b)

November 30, 2010

Retained Earnings	6,120,000	
Ordinary Share Dividend Distributable		1,800,000
Share Premium—Ordinary		4,320,000
(Share dividend of 6%, 180,000 shares, at $34 per share)		

December 31, 2010

Ordinary Share Dividend Distributable	1,800,000	
Share Capital—Ordinary		1,800,000

(c)

EARNHART CORPORATION
Partial Statement of Financial Position
December 31, 2010

Equity	
Share capital—ordinary $10 par value, issued 3,180,000 shares	$31,800,000
Share premium—ordinary	9,320,000
Retained earnings	20,780,000
Total equity	$61,900,000

PROBLEM 15-11 (Continued)

Statement of Retained Earnings
For the Year Ended December 31, 2010

Balance, January 1		$24,000,000
Add: Net income		4,700,000
		28,700,000
Less: Dividends on ordinary shares:		
Cash	$1,800,000	
Share (see note)	6,120,000	7,920,000
Balance December 31		$20,780,000

Schedule of Share Premium—Ordinary
For the Year Ended December 31, 2010

Balance January 1	$5,000,000
Excess of fair value over par value of 180,000 ordinary shares distributed as a dividend (see note)	4,320,000
Balance December 31	$9,320,000

Note: The 6% share dividend (180,000 shares) was declared on November 30, 2010. For the purposes of the dividend, the shares were assigned a price of $34 per share. The par value of $10 per share ($1,800,000) was credited to Share Capital—Ordinary and the excess of $24 ($34 – $10) per share ($4,320,000) to Share Premium—Ordinary.

PROBLEM 15-12

PENN COMPANY
Partial Statement of Financial Position
June 30, 2011

Equity		
8% Share capital—preference, $25 par value, cumulative and non-participating, 100,000 shares authorized, 40,000 shares issued and outstanding—Note A	$1,000,000	
Share capital—ordinary shares, $10 par value, 300,000 shares authorized, 115,400 shares issued with 1,500 shares held in the treasury	1,154,000	$2,154,000
Share premium—preference	760,000	
Share premium—ordinary	2,821,800*	
Share premium—treasury......................................	1,500	3,583,300
Retained earnings..		409,200
Less: Treasury shares, (1,500 shares)		58,500
Total equity		$6,088,000

Note A: Penn Company is in arrears on the preference shares in the amount of $40,000.

*Share Premium—Ordinary:	
Issue of 85,000 shares X ($31 – $10)	$1,785,000
Plot of land	170,000
Issue of 20,000 shares (3/1/09) [20,000 X ($42 – $10)]	640,000
5,400 shares as dividend [5,400 X ($52 – $10)]	226,800
	$2,821,800

PROBLEM 15-12 (Continued)

Account Balances

Share Capital—Ordinary

	850,000
	50,000
	200,000
	54,000
	1,154,000

Share Premium—Ordinary

	1,785,000
	170,000
	640,000
	226,800
	2,821,800

Share Capital—Preference

	1,000,000

Share Premium—Preference

	760,000

Treasury Shares

78,000	
	19,500
58,500	

Share Premium—T.S.

	1,500

Retained Earnings

	690,000
280,800	
	40,000
40,000	
	409,200

Note that the Penn Company is authorized to issue 300,000 shares of $10 par value ordinary shares and 100,000 shares of $25 par value, cumulative and nonparticipating preference shares.

PROBLEM 15-12 (Continued)

Entries supporting the balances.

Entries

1.	Cash	2,635,000	
	Share Capital—Ordinary		850,000
	Share Premium—Ordinary		1,785,000
2.	Land	220,000	
	Share Capital—Ordinary		50,000
	Share Premium—Ordinary		170,000
3.	Cash	840,000	
	Share Capital—Ordinary		200,000
	Share Premium—Ordinary		640,000

At the beginning of the year, Penn had 110,000 ordinary shares outstanding, of which 85,000 shares were issued at $31 per share, resulting in $850,000 (85,000 shares at $10) of share capital and $1,785,000 of share premium on ordinary shares (85,000 shares at $21). The 5,000 shares exchanged for a plot of land would be recorded at $50,000 of share capital and $170,000 of share premium (use the current fair value of the land on July 24 to value the share issuance). The 20,000 shares issued in 2009 at $42 a share resulted in $200,000 of share capital and $640,000 of share premium.

Preference Shares

Cash	1,760,000	
Share Capital—Preference		1,000,000
Share Premium—Preference		760,000

Treasury Shares

Nov. 30	Treasury Shares	78,000	
	Cash		78,000
June 30	Cash	21,000	
	Share Premium—Treasury		1,500
	Treasury Shares		19,500

The 2,000 treasury shares purchased resulted in a debit balance of treasury shares of $78,000. Later, 500 shares were sold at $21,000, which brings the balance down to $58,500 (1,500 shares at $39 per share).

The sale of the treasury shares above cost ($21,000 minus $19,500 cost) is recorded in a separate share premium amount.

Share Dividend

Dec. 15	Retained Earnings	280,800**	
	Share Capital—Ordinary		54,000*
	Share Premium—Ordinary		226,800

*Shares outstanding, beginning of year:	110,000		
Treasury Shares	(2,000)		
	108,000 X 5% =	5,400	
		X $10	Par
		$54,000	

****5,400 Shares X $52**

The 5% share dividend resulted in an increase of 5,400 shares. Recall that there were 110,000 shares outstanding at the beginning of the year. The purchase of 2,000 treasury shares occurred before the share dividend, bringing the number of shares outstanding at the time of the dividend (December 2010) to 108,000 shares. The resale of 500 treasury shares occurred after the share dividend.

The issuance of 40,000 preference shares at $44 resulted in $1,000,000 (40,000 shares at $25) of share capital—preference and $760,000 (40,000 shares at $19) of share premium—preference.

Retained Earnings

The cash dividends only affect the retained earnings. Note that the preference shares are in arrears for the dividends that should have been declared in June 2011. Ending retained earnings is the beginning balance of $690,000 plus net income of $40,000, less the preference dividend of $40,000 and the ordinary share dividend of $280,800 (5,400 shares at $52), resulting in an ending balance of $409,200.

TIME AND PURPOSE OF CONCEPTS FOR ANALYSIS

CA 15-1 (Time 10–20 minutes)
Purpose—to provide the student with some familiarity with the applications of the ordinary share system. This case requires the student to analyze the concept dealing with the dilution of ownership interest and the establishment of any necessary corrective actions to compensate an existing shareholder for this dilution effect.

CA 15-2 (Time 15–20 minutes)
Purpose—to provide the student with an opportunity to discuss the bases for recording the issuance of shares in exchange for non-monetary assets.

CA 15-3 (Time 25–30 minutes)
Purpose—to provide a five-part theory case on equity based on the IASB conceptual framework. It requires defining terms and analyzing the effects of equity transactions on financial statement elements.

CA 15-4 (Time 25–30 minutes)
Purpose—to provide the student with an understanding of the conceptual framework which underlies a share dividend and a share split. The student is required to explain what a share dividend is, the amount of retained earnings to be capitalized in connection with a share dividend, and how it differs from a share split both from a legal standpoint and an accounting standpoint. This case also requires an explanation of the various reasons why a corporation declares a share dividend or a share split.

CA 15-5 (Time 15–20 minutes)
Purpose—to provide the student with an understanding of the theoretical concepts and implications that underlie the issuance of a share dividend. The student is required to discuss the arguments against either considering the share dividend as income to the recipient or issuing share dividends on treasury shares.

CA 15-6 (Time 20–25 minutes)
Purpose—to provide the student with a situation containing a cash dividend declaration, a share dividend, and a reacquisition and reissuance of shares requiring the student to explain the accounting treatment.

CA 15-7 (Time 10–15 minutes)
Purpose—to provide an opportunity for the student to consider and discuss the ethical issues involved when the control of a corporation is at stake. The student should recognize the potential conflict between the CEO's personal will and the responsibility and accountability the CEO has to the shareholders.

SOLUTIONS TO CONCEPTS FOR ANALYSIS

CA 15-1

(a) To share proportionately in any new issues of shares of the same class (the preemptive right).

(b) Derek Wallace bought an additional $100,000 par value shares. His original ownership was $200,000 ($250,000 X 80%). Thus he increased his ownership by 100/200 (50%). This imbalance can be corrected by issuing to Ms. Baker, at par, shares equal to 50% of her present holdings of $25,000 or shares with a par value of $12,500. Other shareholders should also be offered the right to purchase shares equal to 50% of their holdings in order that all shareholders may retain the same proportionate interest as before the issuance of additional shares.

(c) No information is given with respect to the fair value of the shares. In this situation, an estimate for fair value could be developed based on market transactions involving comparable assets. Otherwise, discounted expected cash flows could be used to approximate fair value. In this closely held company, and in the absence of reliable fair value data, the book value might be used for the computation of the amount of the cash settlement.

Book value of Ms. Baker's ordinary shares, June 30, 2010, before issuance of additional shares, 25/250 X $422,000	$42,200
Book value after issuance of additional shares to Derek Wallace, 25/350 X $522,000	(37,286)
Loss in book value and amount of cash settlement	$ 4,914

CA 15-2

(a) The general rule to be applied when shares are issued for services or property other than cash is that companies should record the shares issued at the fair value of the goods or services received, unless that fair value cannot be measured reliably. If the fair value of the goods or services cannot be measured reliably, use the fair value of the shares issued. If a company cannot readily determine either the fair value of the shares it issues or the property or services it receives, it should employ an appropriate valuation technique. Depending on available data, the valuation may be based on market transactions involving comparable assets or the use of discounted expected future cash flows. Companies should avoid the use of the book, par, or stated values as a basis of valuation for these transactions.

(b) If the fair value of the land can be measured reliably, it is used as a basis for recording the exchange. The fair value could be determined by observing the cash sales price of similar pieces of property or through independent appraisals.

(c) If the fair value of the land cannot be measured reliably, but the fair value of the shares issued is determinable, the fair value of the shares is used as a basis for recording the exchange. If the shares are traded on an exchange, the fair value can be determined from that day's cash sales of the shares. If the shares are traded over the counter, recent sales or bid prices can be used to estimate fair value.

(d) If Martin intentionally records this transaction at an amount greater than fair value, both assets and equity will be overstated. This overvaluation of equity from the inflated asset value is referred to as watered shares. This excess can be eliminated by writing down the overvalued assets with a corresponding charge to the appropriate equity accounts.

CA 15-3

(a) Equity, or net assets, is the residual interest in the assets of the entity after deducting all its liabilities; in other words, equity equals assets less liabilities. Assets are resources controlled by the entity as the result of past events and from which future economic benefits are expected to flow to the entity. Liabilities are present obligations of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits.

(b) Transactions or events that change equity include revenues and expenses, gains and losses, investments by owners, and distributions to owners.

(c) Generally, investments by owners cause an increase in assets in addition to the increase in equity.

(d) Dividends generally initially cause an increase in liabilities but eventually cause a decrease in assets in addition to the decrease in equity. The purchase of treasury shares causes a decrease in assets in addition to the decrease in equity.

(e) Some examples of changes within equity that do not change the total amount of equity are retirement of treasury shares, conversion of preference shares into ordinary shares, share dividends, and retained earnings appropriations.

CA 15-4

(a) A share dividend is the issuance by a corporation of its own shares to its shareholders on a prorata basis without receiving payment therefor. The share dividend results in an increase in the amount of the legal or share capital and share premium of the enterprise. The dividend may be charged to retained earnings or to any other equity account that is not a part of legal capital.

    (1) From the legal standpoint a share split is distinguished from a share dividend in that a split results in an increase in the number of shares outstanding and a corresponding decrease in the par or stated value per share. A share dividend, though it results in an increase in the number of shares outstanding, does not result in a decrease in the par or stated value of the shares.

    (2) The major distinction is that a share dividend requires a journal entry to decrease retained earnings and increase paid-in capital, while there is no entry for a share split. Also, from the accounting standpoint the distinction between a share dividend and a share split is dependent upon the intent of the board of directors in making the declaration. If the intent is to give to shareholders some separate evidence of a part of their prorata interests in accumulated corporate earnings, the action results in a share dividend. If the intent is to issue enough shares to reduce the market price per share, the action results in a share split, regardless of the form it may take. In other words, if the action takes the form of a share dividend but reduces the market price markedly, it should be considered a share split. Such reduction will seldom occur unless the number of shares issued is at least 20% to 25% of the number previously outstanding.

(b) The usual reason for issuing a share dividend is to give the shareholders something on a dividend date and yet conserve working capital.

A share dividend that is charged to retained earnings reduces the total accumulated earnings, and all share dividends reduce the per share earnings. Issuing a share dividend to achieve these ends would be a public relations gesture in that the public would be less likely to criticize the corporation for high profits or undue retention of earnings.

CA 15-4 (Continued)

A share dividend also may be issued for the purpose of obtaining a wider distribution of the shares. Although this is the main consideration in a stock split, it may be a secondary consideration in the issuance of a share dividend. The issuance of a series of share dividends will accomplish the same objective as a stock split.

A share split is intended to obtain wider distribution and improved marketability of shares by means of a reduction in the market value of the company's shares.

(c) The amount of retained earnings to be capitalized in connection with a share dividend (in the accounting sense) might be (1) the legal minimum (usually par or stated value), (2) the average share capital per outstanding share, or (3) the market value of the shares.

The third basis is generally recommended on the grounds that recipients tend to regard the market value of the shares received as a dividend as the amount of earnings distributed to them. If the corporation in such cases does not capitalize an amount equal to the fair value of the shares distributed as a dividend, there is left in the corporation's retained earnings account an amount of earnings that the shareholders believe has been distributed to them. This amount would be subject to further share dividends or to cash dividends. The recipients might thus be misled into believing that the company's distributions—and earnings—are greater than they actually are.

If the per share market value of the shares is materially reduced as a result of a distribution (usually 20%–25% of shares outstanding or more), no matter what form the distribution takes, the action is in substance a share split and should be so designated and treated as such.

CA 15-5

(a) The case against treating an ordinary share dividend as income is supported by a majority of accounting authorities. It is based upon "entity" and "proprietary" interpretations.

If the corporation is considered an entity separate from shareholders, the income of the corporation is corporate income and not income to shareholders, although the equity of the shareholders in the corporation increases as income to the corporation increases. This position is consistent with the interpretation that a dividend is not income to the recipient until it is realized as a result of a division, distribution, or severance of corporate assets. The share dividend received merely redistributes each stockholder's equity over a larger number of shares. Selling the share dividend under this interpretation has the effect of reducing the recipient's proportionate share of the corporation's equity.

A similar position is based upon a "proprietary" interpretation. Income of the corporation is considered income to the owners and, hence, share dividends represent only a reclassification of equity since there is no increase in total proprietorship.

(b) The case against issuing share dividends on treasury shares rests principally upon the argument that shares reacquired by the corporation is a "reduction of equity" through the payment of cash to reduce the number of outstanding shares. According to this view, the corporation cannot obtain a proprietary interest in itself when it reacquires its own shares. The retained earnings are con-sidered divisible only among the owners of outstanding shares and only the outstanding shares are entitled to a share dividend. In those states that permit treasury shares to participate in the distribution accompanying a share dividend or share split, practice is influenced by the planned use of the treasury shares (such as, the issuance of treasury shares in connection with employee share options). Unless there are specific uses for the treasury shares, no useful purpose is served by issuing additional shares to treasury.

CA 15-6

(a) Mask Company should account for the purchase of the treasury shares on August 15, 2010, by debiting Treasury Shares and crediting Cash for the cost of the purchase (1,000 shares X €18 per share). Mask should account for the sale of the treasury shares on September 14, 2010, by debiting Cash for the selling price (500 shares X $20 per share), crediting Treasury Shares for cost (500 shares X €18 per share), and crediting Share Premium—Treasury for the excess of the selling price over the cost (500 shares X €2 per share). The remaining treasury shares (500 shares X €18 per share) should be presented separately in the equity section of Mask's December 31, 2010, statement of financial position as an unallocated reduction of equity. These shares are considered issued but not part of ordinary shares outstanding.

(b) Mask should account for the share dividend by debiting Retained Earnings for €21 per share (the market value of the shares in October 2010, the date of the share dividend) multiplied by the 1,950 shares distributed. Mask should then credit Share Capital—Ordinary for the par value of the ordinary shares (€10 per share) multiplied by the 1,950 shares distributed, and credit Share Premium—Ordinary for the excess of the market value (€21 per share) over the par value (€10 per share) multiplied by the 1,950 shares distributed. Total equity does not change, but, because this is considered a small share dividend, recognition has been made of capitalization of retained earnings equivalent to the market value of the additional shares resulting from the share dividend.

(c) Mask should account for the cash dividend on December 20, 2010, the declaration date, by debiting Retained Earnings and crediting Cash Dividends Payable for €1 per share multiplied by the number of shares outstanding 21,450 (20,000 – 1,000 + 500 + 1,950). A cash dividend is a distribution to the corporation's shareholders. The liability for this distribution is incurred on the declaration date, and it is a current liability because it is payable within one year (January 10, 2011). The effect of the cash dividend on Mask's statement of financial position at December 31, 2010, is an increase in current liabilities and a decrease in retained earnings.

CA 15-7

(a) The stakeholders are the dissident shareholders, the other shareholders, potential investors, creditors, and Kenseth.

(b) The ethical issues are honesty, job security, and personal responsibility to others. That is, by using her inside information and her authority to do the buy-back, she can benefit herself at the potential expense of other stakeholders.

(c) It is important for Kenseth to consider what is good for the corporation, not just for her (in finance terminology, an *agency issue*). Kenseth should consider the following questions: (1) Are there better uses for the cash? (2) Can she possibly win over the dissidents in some other way? (3) Would this buyout be in the long-term best interest of all parties?

FINANCIAL REPORTING PROBLEM

(a) M&S's does not have any preference shares.

(b) M&S's ordinary shares have a par value of 25p per share. Like many companies, the par value of M&S's ordinary shares is small relative to its market value.

(c) At 29 March, 2008, M&S had 1,586.5 million ordinary shares issued. This represents 49.6 percent (3,200,000) of M&S's authorized ordinary shares.

(d) At 29 March, 2008 and 31 March, 2007, M&S had 1,586.5 million and 1,699.8 million ordinary shares outstanding, respectively.

(e) The cash dividends caused M&S's Retained Earnings to decrease by £343.6 million.

(f) Return on ordinary share equity:

2008: £821/[£1,964 + £1,648.2/2] = 45.5%

2007: £659.9/[£1,648.2 + £1,203.7/2] = 46.3%

(g) Payout ratio:

2008: £343.6/£821 = 41.9%

2007: £260.6/£659.9 = 39.5%

COMPARATIVE ANALYSIS CASE

(a) Par value:

Cadbury, 10p per share.

Nestlé, CHF0.10 per share.

(b) Percentage of authorized shares issued:

Cadbury, 1,352,990,574 ÷ 2,500,000,000 = 54.1%.

Nestlé, 3,830,000,000 ÷ 3,830,000,000 = 100%.

(c) Treasury shares, year-end 2008:

Cadbury, 10,000,000 shares.

Nestlé, 214,392,760 shares.

(d) Ordinary shares outstanding, year-end 2008:

Cadbury, 1,352,990,574 – 10,000,000 = 1,342,990,574.

Nestlé, 3,830,000,000 – 214,392,760 = 3,615,607,240.

(e) Cadbury declared cash dividends in 2008, reducing equity by £73,000,000 (5.3 p/share).

Nestlé declared cash dividends in 2008, reducing equity by CHF4,573 million (12.2 CHF/share).

(f) Rate of return on ordinary share equity.

2008:

Cadbury
$$\frac{\pounds 366}{\dfrac{\pounds 3{,}534 + \pounds 4{,}173}{2}} = 9.5\%$$

Nestlé
$$\frac{\text{CHF}19{,}051}{\text{CHF}54{,}916 + \text{CHF}54{,}776} = 34.7\%$$

2

2007:

Cadbury $$\frac{£407}{\frac{£4,173 + £3,688}{2}} = 10.4\%$$

Nestlé $$\frac{CHF11,382}{\frac{CHF54,776 + CHF52,848}{2}} = 21.2\%$$

During 2007 and 2008, Nestlé earned a significantly higher return on its ordinary share equity.

(g) Payout ratios for 2008.

Cadbury $$\frac{£73}{£366} = 19.9\%$$

Nestlé $$\frac{CHF4,573^*}{CHF19,051} = 24.0\%$$

*Based on dividends paid.

CASE 1

(a) Management might purchase treasury shares to provide to shareholders a tax-efficient method for receiving cash from the corporation. In addition, it might have to repurchase shares to have them available to issue to people exercising options to purchase shares, or management might purchase treasury shares because it feels that its share price is too low. It may believe that by purchasing shares it is signalling to the market that the price is too low. Management might also use excess cash to purchase shares to ward off a hostile takeover. Finally, management might purchase shares in an effort to change its capital structure. If it purchases shares and issues debt (or at least does not retire debt), it will increase the percentage of debt in its capital structure.

(b) Earnings per share is calculated by dividing net income by the weighted-average number of shares outstanding during the year.

If shares are reduced by treasury share purchases, the denominator (weighted-average number of shares outstanding) is reduced. As a result, earnings per share is often increased. However, because corporate assets are reduced by the purchase of the treasury shares, earnings potential may decrease. If this occurs, the effect on earnings per share may be mitigated.

(c) One measure of solvency is the ratio of debt divided by total assets. This ratio shows how many dollars of assets are backing up each dollar of debt, should the company become financially troubled. For 2009 and 2008, this can be calculated as follows:

2009	2008
($38,059 ÷ $78,770) = .48	($36,965 ÷ $76,008) = .49

This represents a slight decrease in the ratio of debt to total assets. It may be determined that BHP Billiton's solvency is improving, but it should definitely be watched, and in comparison to industry averages.

CASE 2

(a) The date of record marks the time when ownership of the outstanding shares is determined for dividend purposes. This in turn identifies which shareholders will receive the share dividend. This date is also used when a share split occurs. The date of distribution is when the additional shares are distributed (issued) to shareholders.

(b) The purpose of a share split is to increase the marketability of the shares by lowering its market value per share. This may make it easier for the corporation to issue additional shares.

(c) The effects are (1) no effect, (2) no effect, (3) increase, and (4) decrease.

ACCOUNTING, ANALYSIS, AND PRINCIPLES

ACCOUNTING

January 15, 2010

Retained Earnings ($1.05 X 60,000)	63,000	
Cash		63,000

April 15, 2010

Retained Earnings [(10% X 60,000) X $14]	84,000	
Share Capital—Ordinary.......................		60,000
Share Premium—Ordinary		24,000

May 15, 2010

Treasury Shares (2,000 X $15).........................	30,000	
Cash		30,000

November 15, 2010

Cash ($18 X 1,000)..	18,000	
Share Premium—Treasury		3,000
Treasury Shares		15,000

December 31, 2010

Income Summary...	370,000	
Retained Earnings................................		370,000

The balances are indicated in the following partial statement of financial position:

AGASSI CORPORATION
Statement of Financial Position (partial)
December 31, 2010

Equity	
Share capital—ordinary, $10 par value, 66,000 shares issued and outstanding(1)	$ 660,000
Share premium—ordinary(2)	527,000
Retained earnings(3)	843,000
Treasury shares(4)	(15,000)
Total equity	$2,015,000

(1) $600,000 + $60,000
(2) $500,000 + $24,000 + $3,000
(3) $620,000 – $63,000 – $84,000 + $370,000
(4) $30,000 – $15,000

ANALYSIS

Payout ratio: $63,000 ÷ $370,000 = 17%

Return on ordinary share equity: $370,000 ÷ [($1,720,000 + $2,105,000) ÷ 2] = 19.3%.

PRINCIPLES

Treasury shares sold above or below cost do not result in gains or losses because treasury shares do not meet the definition of an asset. Rather, they are unissued equity. Furthermore, gains or losses should not be recorded, because share repurchases and reissues are transactions with its own shareholders; the effects of such transactions should not be recorded in income.

PROFESSIONAL RESEARCH

(1) IAS 1 addresses disclosure of information about capital structure.

(2) An entity shall disclose the following, either in the statement of financial position or the statement of changes in equity, or in the notes:

(a) for each class of share capital:
- **(i) the number of shares authorised;**
- **(ii) the number of shares issued and fully paid, and issued but not fully paid;**
- **(iii) par value per share, or that the shares have no par value;**
- **(iv) a reconciliation of the number of shares outstanding at the beginning and at the end of the period;**
- **(v) the rights, preferences and restrictions attaching to that class including restrictions on the distribution of dividends and the repayment of capital;**
- **(vi) shares in the entity held by the entity or by its subsidiaries or associates; and**
- **(vii) shares reserved for issue under options and contracts for the sale of shares, including terms and amounts; and**

(b) a description of the nature and purpose of each reserve within equity (para. 79).

An entity shall present, either in the statement of changes in equity or in the notes, the amount of dividends recognised as distributions to owners during the period, and the related amount per share (para. 107).

In paragraph 106, the components of equity include, for example, each class of contributed equity, the accumulated balance of each class of other comprehensive income and retained earnings (para. 108).

PROFESSIONAL RESEARCH (Continued)

Changes in an entity's equity between the beginning and the end of the reporting period reflect the increase or decrease in its net assets during the period. Except for changes resulting from transactions with owners in their capacity as owners (such as equity contributions, reacquisitions of the entity's own equity instruments and dividends) and transaction costs directly related to such transactions, the overall change in equity during a period represents the total amount of income and expense, including gains and losses, generated by the entity's activities during that period (para. 109).

IAS 8 requires retrospective adjustments to effect changes in accounting policies, to the extent practicable, except when the transition provisions in another IFRS require otherwise. IAS 8 also requires restatements to correct errors to be made retrospectively, to the extent practicable. Retrospective adjustments and retrospective restatements are not changes in equity but they are adjustments to the opening balance of retained earnings, except when an IFRS requires retrospective adjustment of another component of equity. Paragraph 106(b) requires disclosure in the statement of changes in equity of the total adjustment to each component of equity resulting from changes in accounting policies and, separately, from corrections of errors. These adjustments are disclosed for each prior period and the beginning of the period.

PROFESSIONAL SIMULATION

EXPLANATION

(a) Common stock ordinary shares represents an owner's claim against a portion of the total assets of the corporation. As a result, it is a residual interest. It therefore is part of equity.

(b) Treasury shares are not an asset. When treasury shares are purchased, a reduction occurs in both assets (cash) and equity. It is inappropriate to imply that a corporation can own part of itself. Treasury shares may be sold to obtain funds, but that possibility does not make it an asset. When a corporation buys back some of its own outstanding shares, it has reduced its capitalization, but it has not acquired an asset.

(c) "Accumulated other comprehensive loss" is the sum of all previous "other comprehensive income and loss" amounts. A number of items may be included in the accumulated other comprehensive loss. Among these items are foreign currency translation adjustments, unrealized holding gains and losses for non-trading equity investments and others.

(d) The accumulated deficit is larger in the current year because AMR, like many other major airlines, reported a net loss of $761 million. AMR did not pay dividends in the current year, which would reduce retained earnings.

ANALYSIS

$(581) ÷ 161.156* = $(3.61)

*(182,350,259 – 21,194,312 treasury shares)

Thus, AMR's net worth is negative due to Treasury Shares and Accumulated Losses.

CHAPTER 16

Dilutive Securities and Earnings Per Share

ASSIGNMENT CLASSIFICATION TABLE (BY TOPIC)

Topics		Questions	Brief Exercises	Exercises	Problems	Concepts for Analysis
1.	Convertible debt and preference shares.	1, 2, 3, 4, 5, 6, 7, 27	1, 2, 3	1, 2, 3, 4, 5, 6, 7, 25, 26		1
2.	Warrants and debt.	3, 8, 9	4, 5	7, 8, 9, 10, 29		1, 3
3.	Share options, restricted share.	1, 10, 11, 12, 13, 14, 15	6, 7, 8	11, 12, 13, 14, 15	1, 2, 3	2, 4
4.	Earnings Per Share (EPS)—terminology.	17, 18, 24	15			6
5.	EPS—Determining potentially dilutive securities.	19, 20, 21	12, 13, 14	23, 24, 25, 26, 27, 28		5, 7
6.	EPS—Treasury share method.	22, 23		29		1, 5, 7
7.	EPS—Weighted-average computation.	16, 17	10, 11	16, 17, 18, 19, 22	4, 5, 6, 7,8	
8.	EPS—General objectives.	24, 25	9, 15			5, 6, 7
9.	EPS—Comprehensive calculations.	26, 28		20, 21, 22, 23, 24, 25, 27, 28, 29	4, 6, 7, 8	4, 5
10.	EPS—Contingent shares.			29		
11.	Convergence issues.	26, 27				
*12.	Share appreciation rights.		16	30, 31		

*This material is dealt with in an Appendix to the chapter.

ASSIGNMENT CLASSIFICATION TABLE (BY LEARNING OBJECTIVE)

Learning Objectives	Brief Exercises	Exercises	Problems
1. Describe the accounting for the issuance, conversion, and retirement of convertible securities.	1, 2	1, 2, 3, 4, 5, 6, 7	1
2. Explain the accounting for convertible preference shares.	3	25, 26	
3. Contrast the accounting for share warrants and for share warrants issued with other securities.	4, 5	7, 8, 9, 10	1
4. Describe the accounting for share compensation plans.	6, 7, 8	11, 12,13, 14, 15	1, 2, 3
5. Discuss the controversy involving share compensation plans.			
6. Compute earnings per share in a simple capital structure	9, 10, 11, 15	16, 17, 18, 19, 20, 21, 22	5, 8
7. Compute earnings per share in a complex capital structure.	12, 13, 14	23, 24, 25, 26, 27, 28, 29	4, 6, 7
*8. Explain the accounting for share-appreciation rights plans.	16	30, 31	
*9. Compute earnings per share in a complex situation.			

*This material is dealt with in an Appendix to the chapter.

ASSIGNMENT CHARACTERISTICS TABLE

Item	Description	Level of Difficulty	Time (minutes)
E16-1	Issuance and repurchase of convertible bonds.	Moderate	10–15
E16-2	Issuance and repurchase of convertible bonds.	Moderate	15–20
E16-3	Issuance and repurchase of convertible bonds.	Moderate	15–20
E16-4	Issuance, conversion, repurchase of convertible bonds.	Moderate	15–20
E16-5	Conversion of bonds.	Simple	15–20
E16-6	Conversion of bonds.	Simple	10–15
E16-7	Issuance and conversion of bonds.	Simple	15–20
E16-8	Issuance of bonds with warrants.	Simple	10–15
E16-9	Issuance of bonds with share warrants.	Simple	10–15
E16-10	Issuance of bonds with share warrants.	Moderate	15–20
E16-11	Issuance and exercise of share options.	Moderate	15–25
E16-12	Issuance, exercise, and forfeiture of share options.	Moderate	15–25
E16-13	Issuance, exercise, and expiration of share options.	Moderate	15–25
E16-14	Accounting for restricted shares.	Simple	10–15
E16-15	Accounting for restricted shares.	Simple	10–15
E16-16	Weighted-average number of shares.	Moderate	15–25
E16-17	EPS: Simple capital structure.	Simple	10–15
E16-18	EPS: Simple capital structure.	Simple	10–15
E16-19	EPS: Simple capital structure.	Simple	10–15
E16-20	EPS: Simple capital structure.	Simple	20–25
E16-21	EPS: Simple capital structure.	Simple	10–15
E16-22	EPS: Simple capital structure.	Simple	10–15
E16-23	EPS with convertible bonds, various situations.	Complex	20–25
E16-24	EPS with convertible bonds.	Moderate	15–20
E16-25	EPS with convertible bonds and preference shares.	Moderate	20–25
E16-26	EPS with convertible bonds and preference shares.	Moderate	10–15
E16-27	EPS with options, various situations.	Moderate	20–25
E16-28	EPS with contingent issuance agreement.	Simple	10–15
E16-29	EPS with warrants.	Moderate	15–20
*E16-30	Share-appreciation rights.	Moderate	15–25
*E16-31	Share-appreciation rights.	Moderate	15–25
P16-1	Entries for various dilutive securities.	Moderate	35–40
P16-2	Share-option plan.	Moderate	30–35
P16-3	Share-based compensation.	Moderate	25–30
P16-4	EPS with complex capital structure.	Moderate	30–35
P16-5	Basic EPS: Two-year presentation.	Moderate	30–35
P16-6	Computation of basic and diluted EPS.	Moderate	35–45
P16-7	Computation of basic and diluted EPS.	Moderate	25–35
P16-8	EPS with share dividend and discontinued operations.	Complex	30–40
CA16-1	Dilutive securities, EPS.	Moderate	15–20
CA16-2	Ethical issues—compensation plan.	Simple	15–20
CA16-3	Share warrants—various types.	Moderate	15–20
CA16-4	Share compensation plans.	Moderate	25–35
CA16-5	EPS: Preferred dividends, options, and convertible debt.	Moderate	25–35
CA16-6	EPS concepts and effect of transactions on EPS.	Moderate	25–35
CA16-7	EPS, antidilution.	Moderate	25–35

ANSWERS TO QUESTIONS

1. Securities such as convertible debt or share options are dilutive because their features indicate that the holders of the securities can become shareholders. When the ordinary shares are issued, there will be a reduction—dilution—in earnings per share.

2. Corporations issue convertible securities for two reasons. One is to raise equity capital without giving up more ownership control than necessary. A second reason is to obtain financing at cheaper rates. The conversion privilege attracts investors willing to accept a lower interest rate than on a straight debt issue.

3. Convertible debt and debt issued with share warrants are similar in that: (1) both allow the issuer to issue debt at a lower interest cost than would generally be available for straight debt; (2) both allow the holders to purchase the issuer's shares at less than market value if the shares appreciates sufficiently in the future; (3) both provide the holder the protection of a debt security if the value of the shares does not appreciate; and (4) both are complex securities which contain elements of debt and equity at the time of issue.

4. The accounting treatment of the €160,000 "sweetener" to induce conversion of the bonds into ordinary shares represents a departure from IFRS because the IASB views the transaction as the retirement of debt. Therefore, the IASB requires that the "sweetener" of €160,000 be reported as an expense.

5. (a) From the point of view of the issuer, the conversion feature of convertible debt results in a lower cash interest cost than in the case of nonconvertible debt. In addition, the issuer in planning its long-range financing may view the convertible debt as a means of raising equity capital over the long term. Thus, if the market value of the underlying shares increases sufficiently after the issue of the debt, the issuer will usually be able to force conversion of the convertible debt into shares by calling the issue for redemption. Under the market conditions, the issuer can effectively eliminate the debt. On the other hand, if the market value of the shares does not increase sufficiently to result in the conversion of the debt, the issuer will have received the benefit of the cash proceeds to the scheduled maturity dates at a relatively low cash interest cost.

(b) The purchaser obtains an option to receive either the face amount of the debt upon maturity or the specified number of shares upon conversion. If the market value of the underlying shares increases above the conversion price, the purchaser (either through conversion or through holding the convertible debt containing the conversion option) receives the benefits of appreciation. On the other hand, should the value of the underlying company shares not increase, the purchaser could nevertheless expect to receive the principal and (lower) interest.

6. The view that separate accounting recognition should be accorded the conversion feature of convertible debt is based on the premise that there is an economic value inherent in the conversion feature or call on the ordinary shares and that the value of this feature should be recognized for accounting purposes by the issuer. It may be argued that the call is not significantly different in nature from the call contained in an option or warrant and its issue is thus a type of capital transaction. The fact that the conversion feature coexists with certain senior security characteristics in a complex security and cannot be physically separated from these elements or from the instrument does not constitute a logical or compelling reason why the values of the various elements should not receive separate accounting recognition. The fact that the eventual outcome of the option granted the purchaser of the convertible debt cannot be determined at date of issuance is not relevant to the question of effectively reflecting in the accounting records the various elements of the complex document at the date of issuance. The conversion feature has a value at date of issuance and should be recognized. Moreover, the difficulties of implementation are not insurmountable and should not be relied upon to govern the conclusion.

7. The method used by the company to record the exchange of convertible debentures for ordinary shares can be supported on the grounds that when the company issued the convertible debentures, the proceeds could represent consideration received for the shares. Therefore, when conversion occurs, the book value of the obligation is simply transferred to the shares exchanged for it. Further justification is that conversion represents a transaction with shareholders which should not give rise to a gain or loss.

On the other hand, recording the issue of the ordinary shares at the book value of the debentures is open to question. It may be argued that the exchange of the shares for the debentures completes the transaction cycle for the debentures and begins a new cycle for the shares. The consideration or value used for this new transaction cycle should then be the amount which would be received if the debentures were sold rather than exchanged, or the amount which would be received if the related shares were sold, whichever is more clearly determinable at the time of the exchange. This method recognizes changes in values which have occurred and subordinates a consideration determined at the time the debentures were issued.

8.

Cash	3,000,000	
Bonds Payable		2,900,000
Share Premium-Share Warrants		100,000

9. If a corporation decides to issue new shares, the old shareholders generally have the right, referred to as a share right, to purchase newly issued shares in proportion to their holdings. No entry is required when rights are issued to existing shareholders. Only a memorandum entry is needed to indicate that the rights have been issued. If exercised, the corporation simply debits Cash for the proceeds received, credits Share Capital—Ordinary for the par value, and any difference is recorded with a credit to Share Premium—Ordinary.

10. Companies are required to use the fair value method to recognize compensation cost. For most share option plans compensation cost is measured at the grant date and allocated to expense over the service period, which typically ends on the vesting date.

11. Gordero would account for the discount as a reduction of the cash proceeds and an increase in compensation expense. The IASB concluded that this benefit represents employee compensation.

12. The profession recommends that the fair value of a share option be determined on the date on which the option is granted to a specific individual.

At the date the option is granted, the corporation foregoes the alternative of selling the shares at the then prevailing price. The market price on the date of grant may be presumed to be the value which the employer had in mind. It is the value of the option at the date of grant, rather than the grantor's ultimate gain or loss on the transaction, which for accounting purposes constitutes whatever compensation the grantor intends to pay.

13. IFRS requires that compensation expense be recognized over the service period. Unless otherwise specified, the service period is the vesting period—the time between the grant date and the vesting date.

14. Using the fair value approach, total compensation expense is computed based on the fair value of the options on the date the options are granted to the employees. Fair value is estimated using an acceptable option pricing model (such as the Black-Scholes option-pricing model).

15. The advantages of using restricted shares to compensate employees are: (1) The restricted shares never become completely worthless; (2) they generally result in less dilution than share options; and (3) they better align the employee incentives with the companies incentives.

16. Weighted-average shares outstanding

Outstanding shares (all year) =	400,000	
October 1 to December 31 (200,000 X 1/4) =	50,000	
Weighted average		450,000
Net income	$1,750,000	
Preference dividends	400,000	
Income available to common shareholders		$1,350,000

$$\text{Earnings per share} = \frac{\$1,350,000}{450,000} = \$3.00$$

17. The computation of the weighted-average number of shares requires restatement of the shares outstanding before the share dividend or split. The additional shares outstanding as a result of a share dividend or split are assumed to have been outstanding since the beginning of the year. Shares outstanding prior to the share dividend or split are adjusted so that these shares are stated on the same basis as shares issued after the share dividend/split.

18. (a) Basic earnings per share is the amount of earnings for the period available to each ordinary share outstanding during the reporting period.

(b) A potentially dilutive security is a security which can be exchanged for or converted into ordinary shares and therefore upon conversion or exercise could dilute (or decrease) earnings per share. Included in this category are convertible securities, options, warrants, and other rights.

(c) Diluted earnings per share is the amount of earnings for the period available to each ordinary share outstanding and to each share that would have been outstanding assuming the issuance of ordinary shares for all dilutive potential ordinary shares outstanding during the reporting period.

(d) A complex capital structure exists whenever a company's capital structure includes dilutive securities.

(e) Potential ordinary shares are not ordinary shares in form but do enable their holders to obtain ordinary shares upon exercise or conversion.

19. Convertible securities are potentially dilutive securities and part of diluted earnings per share if their conversion increases the EPS numerator less than it increases the EPS denominator; i.e., the EPS after conversion is less than the EPS before conversion.

20. The concept that a security may be the equivalent of common stock has evolved to meet the reporting needs of investors in corporations that have issued certain types of convertible securities, options, and warrants. A potentially dilutive security is a security which is not, in form, common stock but which enables its holder to obtain common stock upon exercise or conversion. The holders of these securities can expect to participate in the appreciation of the value of the common stock resulting principally from the earnings and earnings potential of the issuing corporation. This participation is essentially the same as that of a common stockholder except that the security may carry a specified dividend yielding a return different from that received by a common stockholder. The attractiveness to investors of this type of security is often based principally upon this potential right to share in increases in the earnings potential of the issuing corporation rather than upon its fixed return or upon other senior security characteristics. In addition, the call characteristic of the stock options and warrants gives the investor potential control over a far greater number of shares per dollar of investment than if the investor owned the shares outright.

Questions Chapter 16 (Continued)

21. Convertible securities are considered to be potentially dilutive securities whenever their conversion would decrease earnings per share. If this situation does not result, conversion is not assumed and only basic EPS is reported.

22. Under the treasury share method, diluted earnings per share should be determined as if outstanding options and warrants were exercised at the beginning of year (or date of issue if later) and the funds obtained thereby were used to purchase ordinary shares at the average market price for the period. For example, if a corporation has 10,000 warrants outstanding exercisable at $54, and the average market price of the ordinary shares during the reported period is $60, the $540,000 which would be realized from exercise of warrants and issuance of 10,000 shares would be an amount sufficient to acquire 9,000 shares; thus, 1,000 shares would be added to the outstanding ordinary shares in computing diluted earnings per share for the period. However, to avoid an incremental positive effect upon earnings per share, options and warrants should enter into the computation only when the average market price of the ordinary shares exceeds the exercise price of the option or warrant.

23. Yes, if warrants or options are present, an increase in the market price of the ordinary shares can increase the number of potentially dilutive ordinary shares by decreasing the number of shares repurchasable. In addition, an increase in the market price of ordinary shares can increase the compensation expense reported in a share appreciation rights plan. This would decrease net income and, consequently, earnings per share.

24. Antidilution is an increase in earnings per share resulting from the assumption that convertible securities have been converted or that options and warrants have been exercised, or other shares have been issued upon the fulfillment of certain conditions. For example, an antidilutive condition would exist when the dividend or interest requirement (net of tax) of a convertible security exceeds the current EPS multiplied by the number of ordinary shares issuable upon conversion of the security. This may be illustrated by assuming a company in the following situation:

Net income..	$ 10,000
Outstanding ordinary shares..	20,000
Interest expense on convertible bonds payable (convertible into 5,000 ordinary shares)	$6,000
Tax rate..	40%

Basic earnings per share = $10,000/20,000 shares = $.50

Earnings per share assuming conversion of the bonds:

Net income..	$10,000
Bond interest (net of tax) = (1 – .40) ($100,000 X .06)	3,600
Adjusted net income	$13,600

$$\text{Earnings per share assuming conversion} = \frac{\$13,600}{20,000 + 5,000} = \underline{\underline{\$.54}}$$

This antidilutive effect occurs because the bond interest (net of tax) of $3,600 is greater than the current EPS of $.50 multiplied by the number of shares issuable upon conversion of the bonds (5,000 shares).

25. Both basic earnings per share and diluted earnings per share must be presented in a complex capital structure. When discontinued operations are reported, per share amounts should be shown for income from continuing operations, and net income.

26. IFRS and U.S. GAAP are substantially the same in the accounting for share-based compensation. For example, both IFRS and U.S. GAAP follow the same model for recognizing share-based compensation. That is, the fair value of shares and options awarded to employees is recognized over the period to which the employees' services relate.

27. (a) Under IFRS, Norman must "bifurcate" (split out) the equity component—the value of the conversion option—of the bond issue. Under iGAAP, the convertible bond issue is recorded as follows.

Cash	400,000	
Bonds Payable		365,000
Share Premium—Conversion Equity		35,000

(b) Norman makes the following entry to record the issuance under U.S. GAAP.

Cash	400,000	
Bonds Payable		400,000

(c) IFRS provides a more faithful representation of the impact of the bond issue, by recording separately its debt and equity components. However, there are concerns about reliability of the models used to estimate the equity portion of the bond issue.

***28**. Antidilution when multiple securities are involved is determined by ranking the securities for maximum possible dilution in terms of per share effect. Starting with the most dilutive, earnings per share is reduced until one of the securities maintains or increases earnings per share. When an increase in earnings per share occurs, the security that causes the increase in earnings per share is excluded. The previous computation therefore provided the maximum dilution.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 16-1

Cash (£4,000,000 X .99)	3,960,000	
Bonds Payable		3,800,000
Share Premium—Conversion Equity		160,000

BRIEF EXERCISE 16-2

Share Premium—Conversion Equity	20,000	
Bonds Payable	1,950,000	
Share Capital—Ordinary (2,000 X 50 X €10)		1,000,000
Share Premium—Ordinary		970,000

BRIEF EXERCISE 16-3

Share Capital—Preference (1,000 X $50)	50,000	
Share Premium—Conversion Equity ($60 – $50) X 1,000	10,000	
Share Capital—Ordinary (2,000 X $10)		20,000
Share Premium—Ordinary ($60 X 1,000) – (2,000 X $10)		40,000

BRIEF EXERCISE 16-4

Cash [2,000 X ($1,000 X 1.01)]	2,020,000	
Bonds Payable		1,970,000
Share Premium-Share Warrants		50,000

BRIEF EXERCISE 16-5

Cash 3,000 X (€1,000 X .98)	2,940,000	
Bonds Payable		2,910,000
Share Premium—Stock Warrants		30,000

BRIEF EXERCISE 16-6

1/1/10	No entry		
12/31/10	Compensation Expense	75,000	
	Share Premium—Share Options		75,000
12/31/11	Compensation Expense	75,000	
	Share Premium—Share Options		75,000

BRIEF EXERCISE 16-7

1/1/10	Unearned Compensation	130,000	
	Share Capital—Ordinary (2,000 X $5)		10,000
	Share Premium—Ordinary [($65 – $5) X 2,000]		120,000
12/31/10	Compensation Expense	65,000	
	Unearned Compensation		65,000
12/31/11	Compensation Expense	65,000	
	Unearned Compensation		65,000

BRIEF EXERCISE 16-8

1/1/10	Unearned Compensation	75,000	
	Share Capital—Ordinary		10,000
	Share Premium—Ordinary		65,000
12/31/10	Compensation Expense	25,000	
	Unearned Compensation ($75,000 ÷ 3)		25,000

BRIEF EXERCISE 16-9

$$\frac{€1,000,000 – (100,000 \times €2)}{250,000 \text{ shares}} = \underline{\underline{€3.20 \text{ per share}}}$$

BRIEF EXERCISE 16-10

Dates Outstanding	Shares Outstanding	Fraction of Year	Weighted Shares
1/1–5/1	120,000	4/12	40,000
5/1–7/1	180,000	2/12	30,000
7/1–10/1	170,000	3/12	42,500
10/1–12/31	180,000	3/12	45,000
			157,500

BRIEF EXERCISE 16-11

(a) (300,000 X 4/12) + (330,000 X 8/12) = 320,000

(b) 330,000 (The 30,000 shares issued in the share dividend are assumed outstanding from the beginning of the year.)

BRIEF EXERCISE 16-12

Net income	R300,000
Adjustment for interest, net of tax [R64,000 X (1 – .40)]	38,400
Adjusted net income	R338,400
Weighted average number of shares adjusted for dilutive securities (100,000 + 16,000)	÷116,000
Diluted EPS	R2.92

BRIEF EXERCISE 16-13

Net income	$270,000
Weighted average number of shares adjusted for dilutive securities (50,000 + 10,000)	÷ 60,000
Diluted EPS	$4.50

BRIEF EXERCISE 16-14

Proceeds from assumed exercise of 45,000 options (45,000 X $10)	$450,000
Shares issued upon exercise	45,000
Treasury shares purchasable ($450,000 ÷ $15)	30,000
Incremental shares	15,000

$$\text{Diluted EPS} = \frac{\$300,000}{200,000 + 15,000} = \underline{\underline{\$1.40}}$$

BRIEF EXERCISE 16-15

Earnings per share

Income from continuing operations (€600,000/100,000)	€ 6.00
Discontinued operations loss (€120,000/100,000)	(1.20)
Net income (€480,000/100,000)	€ 4.80

*BRIEF EXERCISE 16-16

2010: (5,000 X $4) X 50% = $10,000

2011: (5,000 X $9) – $10,000 = $35,000

SOLUTIONS TO EXERCISES

EXERCISE 16-1 (10–15 minutes)

(a)

Present Value of Principal:	
(€2,000,000 X .79383)...	€1,587,660
Present Value of Interest Payments:	
(€120,000 X 2.57710)..	309,252
Present Value of the Liability Component	€1,896,912
Fair Value of Convertible Debt	€2,000,000
Less: Fair Value of Liability Component................................	1,896,912
Fair Value of Equity Component...	€ 103,088

(b)

Cash	2,000,000	
Bonds Payable..		1,896,912
Share Premium—Conversion Equity.........		103,088

(c)

Bonds Payable	2,000,000	
Cash		2,000,000

EXERCISE 16-2 (15–20 minutes)

(a)

Carrying Value of Bonds, 1-1-11	
(from Ex. 16–1(a))	€1,896,912
Discount Amortized in 2011	
[(€1,896,912 X .08) – €120,000)]	31,753
Carrying Value of Bonds, 1-1-12...	€1,928,665

(b)

Share Premium—Conversion Equity............	103,088	
Bonds Payable	1,928,665	
Share Capital—Ordinary.........................		500,000
Share Premium—Ordinary		1,531,753*

*€103,088 + €1,928,665 – €500,000

EXERCISE 16-2 (Continued)

(c)	Share Premium—Conversion Equity	40,000*	
	Bonds Payable	1,928,665	
	Cash		1,940,000
	Gain on Repurchase		28,665**

*€1,940,000 – €1,900,000 (Fair value of convertible bond issue (both liability and equity components less the fair value of the liability component). The remaining balance in this account could be transferred to Share Premium—Ordinary.

**€1,928,665 – €1,900,000 (Angela has a gain because the repurchase amounts of the liability component is less than the carrying value of the liability component.)

EXERCISE 16-3 (15–20 minutes)

(a)

Present Value of Principal: (¥100,000 X .59345)	¥ 59,345
Present Value of Interest Payments: (¥10,000 X 3.69590)	36,959
Present Value of the Liability Component	¥ 96,304

Fair Value of the convertible bonds (including both the liability and equity components)	¥100,000
Less: Fair value of liability component (from above)	96,304
Equity component	¥ 3,696

Cash	100,000	
Bonds Payable		96,304
Share Premium—Conversion Equity		3,696

(b)

Date	Cash Paid	Interest Expense	Discount Amortized	Carrying Value of Bonds
1/1/11				¥96,304
12/31/11	¥10,000	¥10,593	¥593	96,897
12/31/12	¥10,000	10,659	659	97,556
12/31/13	¥10,000	10,731	731	98,287

EXERCISE 16-3 (Continued)

Computation of gain or loss:

Present value of liability component at 1/1/14 (n=7, I = 8%)	¥110,413*
Carrying value (from above)	98,287
Loss	¥ 12,126

* 10,000 X 5.20637 =	¥ 52,064
100,000 X .58349 =	58,349
	¥110,413

Adjustment to equity:

Fair value of convertible bonds (with both liability and equity)	¥112,000
Less: Liability component	110,413
Adjustment to Share Premium—Conversion Equity	¥ 1,587

Share Premium—Conversion Equity	1,587*	
Bonds Payable	98,287	
Loss on Repurchase	12,126	
Cash		112,000

*The remaining balance in this account could be transferred to Share Premium—Ordinary.

EXERCISE 16-4 (15–20 minutes)

(a)	Cash	60,000	
	Bonds Payable		53,993
	Share Premium—Conversion Equity		6,007
(b)	Interest Expense	4,265	
	Bonds Payable	735	
	Cash		5,000
(c)	Share Premium—Conversion Equity	6,007	
	Bonds Payable	51,783	
	Share Capital—Ordinary (6,000 X $1)		6,000
	Share Premium—Ordinary		51,790

EXERCISE 16-4 (Continued)

(d) Computation of gain or loss:

Present value of liability component at 12/31/13	$54,000	
Less: Carrying value (from above)	51,783	
Loss	$ 2,217	

Adjustment to equity:

Fair value of convertible bonds (with both liability and equity)	$55,500	
Less: Liability component	54,000	
Adjustment to Share Premium—Conversion Equity	$ 1,500	

Share Premium—Conversion Equity	1,500	
Bonds Payable	51,783	
Loss on Repurchase	2,217	
Cash		55,500

(e)

Interest Expense	4,074	
Bonds Payable	926	
Cash		5,000
Bonds Payable	50,000	
Cash		50,000

EXERCISE 16-5 (15–20 minutes)

(a) Cash (€3,000,000 X .98)	2,940,000	
Bonds Payable		2,800,000
Share Premium—Conversion Equity		140,000
(b) Interest Expense (€2,800,000 X 11% ÷ 2)	154,000	
Bonds Payable		4,000
Cash (€3,000,000 X 10% ÷ 2)		150,000
(c) Interest Expense (€2,804,000 X 11% ÷ 2)	154,220	
Bonds Payable		4,220
Cash		150,000

EXERCISE 16-5 (Continued)

Share Premium—Conversion Equity (140,000 X 1/3)	46,667	
Bonds Payable	936,073*	
Share Capital—Ordinary (30,000 X €20)		600,000
Share Premium—Ordinary		382,740

*(€2,804,000 + €4,220) X 1/3

EXERCISE 16-6 (10–15 minutes)

Conversion recorded at book value of the bonds:

Share Premium—Conversion Equity	3,500	
Bonds Payable	406,000	
Share Capital—Preference (400 X 20 X $50)		400,000
Share Premium—Preference		2,500

EXERCISE 16-7 (15–20 minutes)

1.	Cash (€10,000,000 X .99)	9,900,000	
	Bonds Payable (10,000,000 X .95)		9,500,000
	Share Premium—Conversion Equity		400,000
2.	Cash (€10,000,000 X .98)	9,800,000	
	Bonds Payable		9,600,000
	Share Premium—Share Warrants		200,000
3.	Share Premium—Conversion Equity	200,000	
	Conversion Expense	75,000	
	Bonds Payable	9,700,000	
	Share Capital—Ordinary		1,000,000
	Share Premium—Ordinary		8,900,000*
	Cash		75,000

*[(€9,700,000 + €200,000) – €1,000,000]

EXERCISE 16-8 (10–15 minutes)

(a)

Cash	150,000	
Bonds Payable		136,000
Share Premium—Share Warrants		14,000

(b) Even if the warrants were nondetachable, the entry in (a) would be the same. Any debt issued with warrants is considered a compound instrument for accounting purposes.

EXERCISE 16-9 (10–15 minutes)

LIN COMPANY
Journal Entry
September 1, 2010

Cash (¥312,000,000 + ¥6,000,000)	318,000,000	
Bonds Payable (3,000 X ¥1,000)		290,000,000
Share Premium—Share Warrants—Schedule 1		22,000,000
Bond Interest Expense—Schedule 2		6,000,000
(To record the issuance of the bonds)		

Schedule 1

Value of Share Warrants

Sales price (30,000 X ¥10,400)	¥312,000,000
Present value of bonds	290,000,000
Net value of share warrants	¥ 22,000,000

Schedule 2

Accrued Bond Interest to Date of Sale

Face value of bonds	¥300,000,000
Interest rate	X 8%
Annual interest	¥ 24,000,000
Accrued interest for 3 months – (¥24,000,000 X 3/12)	¥ 6,000,000

EXERCISE 16-10 (15–20 minutes)

(a)	Cash (€3,000,000 X 1.02)	3,060,000	
	Bonds Payable		2,940,000
	Share Premium—Share Warrants		120,000*

*$3,060,000 – ($2,940,000)

(b)	Cash	3,060,000	
	Bonds Payable		2,940,000
	Share Premium—Share Warrants		120,000*

*Note: IFRS requires determining the equity component as a residual. Answer is same as (a).

EXERCISE 16-11 (15–25 minutes)

1/2/10 No entry (total compensation cost is $600,000)

12/31/10	Compensation Expense	300,000	
	Share Premium—Share Options		300,000
	[To record compensation expense for 2010 (1/2 X $600,000)]		
12/31/11	Compensation Expense	300,000	
	Share Premium—Share Options		300,000
	[To record compensation expense for 2011 (1/2 X $600,000)]		
1/3/12	Cash (30,000 X $40)	1,200,000	
	Share Premium—Share Options ($600,000 X 30,000/40,000)	450,000	
	Share Capital—Ordinary (30,000 X $10)		300,000
	Share Premium—Ordinary		1,350,000
	(To record issuance of 30,000 $10 par value shares upon exercise of options at option price of $40)		

EXERCISE 16-11 (Continued)

(Note to instructor: The market price of the shares has no relevance in the prior entry and the following one.)

5/1/12	Cash (10,000 X $40)	400,000	
	Share Premium—Share Options ($600,000 X 10,000/40,000)	150,000	
	Share Capital—Ordinary		100,000
	Share Premium—Ordinary		450,000
	(To record issuance of 10,000 $10 par value shares upon exercise of options at option price of $40)		

EXERCISE 16-12 (15–25 minutes)

1/1/10	No entry (total compensation cost is €400,000)		
12/31/10	Compensation Expense	200,000	
	Share Premium—Share Options		200,000
	(€400,000 X 1/2) (To recognize compensation expense for 2010)		
4/1/11	Share Premium—Share Options	30,000	
	Compensation Expense (€200,000 X 3,000/20,000)		30,000
	(To record forfeiture of share options held by resigned employees)		
12/31/11	Compensation Expense	170,000	
	Share Premium—Share Options		170,000
	(€400,000 X $^{1}/_{2}$ X $^{17}/_{20}$) (To recognize compensation expense for 2011)		
3/31/12	Cash (12,000 X €25)	300,000	
	Share Premium—Share Options (€400,000 X 12,000/20,000)	240,000	
	Share Capital—Ordinary		120,000
	Share Premium—Ordinary		420,000
	(To record exercise of share options)		

Note: There are 5,000 options unexercised as of 3/31/12 (20,000 – 3,000 – 12,000).

EXERCISE 16-13 (15–25 minutes)

1/1/09	No entry (total compensation cost is $450,000)		
12/31/09	Compensation Expense	225,000	
	Share Premium—Share Options ($450,000 X 1/2)		225,000
12/31/10	Compensation Expense	225,000	
	Share Premium—Share Options		225,000
5/1/11	Cash (9,000 X $20)	180,000	
	Share Premium—Share Options	405,000*	
	Share Capital—Ordinary (9,000 X $5)		45,000
	Share Premium—Ordinary		540,000
	*($450,000 X 9,000/10,000)		
1/1/13	Paid-in Capital—Share Options	45,000	
	Share Premium—Expired Share Options ($450,000 – $405,000)		45,000

EXERCISE 16-14 (10–15 minutes)

(a) 1/1/10	Unearned Compensation	120,000	
	Share Capital—Ordinary (4,000 X $5)		20,000
	Share Premium—Ordinary		100,000
12/31/11	Compensation Expense	30,000	
	Unearned Compensation ($120,000 ÷ 4)		30,000
(b) 3/4/12	Share Capital—Ordinary	20,000	
	Share Premium—Ordinary	100,000	
	Unearned Compensation		60,000
	Compensation Expense (2 X $30,000)		60,000

EXERCISE 16-15 (10–15 minutes)

(a) 1/1/10	Unearned Compensation	500,000	
	Share Capital—Ordinary (€10 X 10,000)		100,000
	Share Premium—Ordinary		400,000
12/31/11	Compensation Expense (€500,000 ÷ 5)	100,000	

	Unearned Compensation		100,000

EXERCISE 16-15 (Continued)

(b) 1/1/15	Share Capital—Ordinary	100,000	
	Share Premium—Ordinary	400,000	
	Compensation Expense		500,000

EXERCISE 16-16 (15–25 minutes)

(a) 2,640,000 shares

Jan. 1, 2010–Sept. 30, 2010 (2,400,000 X 9/12)	1,800,000
Retroactive adjustment for share dividend	X 1.10
Jan. 1, 2010–Sept. 30, 2010, as adjusted	1,980,000
Oct. 1, 2010–Dec. 31, 2010 (2,640,000 X 3/12)	660,000
	2,640,000

Another way to view this transaction is that the 2,400,000 shares at the beginning of the year must be restated for the share dividend regardless of where in the year the share dividend occurs.

(b) 4,140,000 shares

Jan. 1, 2011–Mar. 31, 2011 (2,640,000 X 3/12)	660,000
Apr. 1, 2011–Dec. 31, 2011 (4,640,000 X 9/12)	3,480,000
	4,140,000

(c) 8,280,000 shares

2011 weighted-average number of shares previously computed	4,140,000
Retroactive adjustment for share split	X 2
	8,280,000

(d) 9,280,000 shares

Jan. 1, 2012–Mar. 31, 2012 (4,640,000 X 3/12)	1,160,000
Retroactive adjustment for share split	X 2
Jan. 1, 2012–Mar. 31, 2012, as adjusted	2,320,000
Apr. 1, 2012–Dec. 31, 2012 (9,280,000 X 9/12)	6,960,000
	9,280,000

Another way to view this transaction is that the 4,640,000 shares at the beginning of the year must be restated for the share split regardless of where in the year the share split occurs.

EXERCISE 16-17 (10–15 minutes)

(a)

Event	Dates Outstanding	Shares Outstanding	Restatement	Fraction of Year	Weighted Shares
Beginning balance	Jan. 1–Feb. 1	480,000	1.2 X 3.0	1/12	144,000
Issued shares	Feb. 1–Mar. 1	600,000	1.2 X 3.0	1/12	180,000
Share dividend	Mar. 1–May 1	720,000	3.0	2/12	360,000
Reacquired shares	May 1–June 1	620,000	3.0	1/12	155,000
Share split	June 1–Oct. 1	1,860,000		4/12	620,000
Reissued shares	Oct. 1–Dec. 31	1,920,000		3/12	480,000
Weighted-average number of shares outstanding					1,939,000

(b) Earnings Per Share = $\frac{\text{¥3,256,000,000 (Net Income)}}{\text{1,939,000 (Weighted-Average Shares)}}$ = ¥1,679.22

(c) Earnings Per Share = $\frac{\text{¥3,256,000,000 – ¥900,000}}{\text{1,939,000}}$ = ¥1,678.75

(d)

Income from continuing operations[a]	¥	1,902.01
Loss from discontinued operations[b]		(222.80)
Net income	¥	1,679.21

[a]Net income	¥3,256,000,000
Add loss from discontinued operations	432,000,000
Income from continuing operations	¥3,688,000,000

$$\frac{\text{¥3,688,000,000}}{\text{1,939,000}} = \text{¥1,902.01}$$

$$\frac{^{b}\text{¥ (432,000,000)}}{\text{1,939,000}} = \text{¥ 222.80}$$

EXERCISE 16-18 (10–15 minutes)

Event	Dates Outstanding	Shares Outstanding	Fraction of Year	Weighted Shares
Beginning balance	Jan. 1–May 1	210,000	4/12	70,000
Issued shares	May 1–Oct. 31	218,000	6/12	109,000
Reacquired shares	Oct. 31–Dec. 31	204,000	2/12	34,000
Weighted-average number of shares outstanding				213,000

Income per share before discontinued operations loss ($229,690 + $40,600 = $270,290; $270,290 ÷ 213,000 shares)	$1.27
Discontinued operations loss per share, net of tax ($40,600 ÷ 213,000)	(.19)
Net income per share ($229,690 ÷ 213,000)	$1.08

EXERCISE 16-19 (10–15 minutes)

Event	Dates Outstanding	Shares Outstanding	Restatement	Fraction of Year	Weighted Shares
Beginning balance	Jan. 1–May 1	600,000	2	4/12	400,000
Issued shares	May 1–Aug. 1	900,000	2	3/12	450,000
Reacquired shares	Aug. 1–Dec. 31	750,000	2	5/12	625,000
Weighted-average number of shares outstanding					1,475,000

Net income	¥2,200,000
Preference dividend (50,000 X ¥100 X 8%)	(400,000)
	¥1,800,000

$$\frac{\text{Net income applicable to ordinary shares}}{\text{Weighted-average number of shares outstanding}} = \frac{¥1{,}800{,}000}{1{,}475{,}000} = ¥1.22$$

EXERCISE 16-20 (20–25 minutes)

Earnings per ordinary share:	
Income from continuing operations*	$1.89
Discontinued operations loss, net of tax**	(.17)
Net income***	$1.72

Income data:	
Income from continuing operations	$15,000,000
Deduct 6% dividend on preference shares	300,000
Ordinary share income from discontinued operations	14,700,000
Deduct discontinued operations loss, net of tax	1,340,000
Net income available for ordinary shareholders	$13,360,000

Dates Outstanding	Shares Outstanding	Fraction of Year	Weighted Shares
January 1–April 1	7,000,000	3/12	1,750,000
April 1–December 31	8,000,000	9/12	6,000,000
Weighted-average number of shares outstanding			7,750,000

*$14,700,000 ÷ 7,750,000 shares = $1.89 per share (income from continuing operations)

**$1,340,000 ÷ 7,750,000 shares = ($.17) per share (discontinued operations loss net of tax)

***$13,360,000 ÷ 7,750,000 shares = $1.72 per share (net income)

EXERCISE 16-21 (10–15 minutes)

Income from continuing operations before taxes	€300,000
Income taxes	120,000
Income from continuing operations	180,000
Discontinued operations gain, net of applicable income tax of €36,000	54,000
Net income	€234,000

Per ordinary share:	
Income from continuing operations*	€.41
Discontinued operations gain, net of tax**	.18
Net income***	€.59

EXERCISE 16-21 (Continued)

Dates Outstanding	Shares Outstanding	Fraction of Year	Weighted Shares
January 1–April 1	200,000	3/12	50,000
April 1–July 1	260,000	3/12	65,000
July 1–Oct. 1	340,000	3/12	85,000
Oct. 1–Dec. 31	370,000	3/12	92,500
Weighted-average number of shares outstanding			292,500

€300,000 – income tax of €120,000 – preference dividends of €60,000 (6% of €1,000,000) = €120,000 (income available to ordinary shareholders)

*€120,000 ÷ 292,500 shares = €.41 per share (income from continuing operations)
**€54,000 ÷ 292,500 shares = €.18 per share (discontinued operations gain, net of tax)
***€174,000 ÷ 292,500 shares = €.59 per share (net income)

EXERCISE 16-22 (10–15 minutes)

Event	Dates Outstanding	Shares Outstanding	Fraction of Year	Weighted Shares
Beginning balance	Jan. 1–April 1	800,000	3/12	200,000
Issued shares	April 1–Oct. 1	1,250,000	6/12	625,000
Reacquired shares	Oct. 1–Dec. 31	1,140,000	3/12	285,000

Weighted-average number of shares outstanding—unadjusted	1,110,000
Share dividend, 2/15/11	X 1.05
Weighted-average number of shares outstanding—adjusted	1,165,500
Net income	$2,830,000
Preference dividend (280,000 X $50 X 7%)	(980,000)
	$1,850,000

Earnings per share for 2010:

$$\frac{\text{Net income applicable to ordinary shares}}{\text{Weighted-average number of ordinary shares outstanding}} = \frac{\$1{,}850{,}000}{1{,}165{,}500} = \$1.59$$

EXERCISE 16-23 (20–25 minutes)

(a)

Revenues		$17,500
Expenses:		
Other than interest	$8,400	
Bond interest (75 X $950 X .10)	7,125	15,525
Income before income taxes		1,975
Income taxes (40%)		790
Net income		$ 1,185

Diluted earnings per share:

$$\frac{\$1,185 + (1 - .40)(\$7,125)}{2,000 + 7,500} = \frac{\$5,460}{9,500} = \underline{\underline{\$.57}}$$

(b)

Revenues		$17,500
Expenses:		
Other than interest	$8,400	
Bond interest (75 X $950 X .10 X 4/12).................	2,375	10,775
Income before income taxes		6,725
Income taxes (40%)		2,690
Net income		$ 4,035

Diluted earnings per share:

$$\frac{\$4,035 + (1 - .40)(\$2,375)}{2,000 + (7,500 \text{ X } 1/3 \text{ yr.})} = \frac{\$5,460}{4,500} = \underline{\underline{\$1.21}}$$

(c)

Revenues		$17,500
Expenses:		
Other than interest	$8,400	
Bond interest (75 X $950 X .10 X 1/2)............	3,563	
Bond interest (50 X $950 X .10 X 1/2)............	2,375	14,338
Income before income taxes		3,162
Income taxes (40%)		1,265
Net income		$ 1,897

Diluted earnings per share (see note):

$$\frac{\$1,897 + (1 - .40)(\$5,938)}{2,000 + (2,500 \text{ X } 1/2 \text{ yr.}) + 5,000 + (2,500 \text{ X } 1/2)} = \frac{\$5,460}{9,500} = \underline{\underline{\$.57}}$$

Note: The answer is the same as (a). In both (a) and (c), the bonds are assumed converted for the entire year.

EXERCISE 16-24 (15–20 minutes)

(a) 1. Number of shares for basic earnings per share.

Dates Outstanding	Shares Outstanding	Fraction of Year	Weighted Shares
Jan. 1–April 1	800,000	3/12	200,000
April 1–Dec. 1	1,400,000	9/12	1,050,000
Weighted-average number of shares outstanding			1,250,000

OR

Number of shares for basic earnings per share:

Initial issue of shares	800,000 shares
April 1, 2011 issue (3/4 X 600,000)	450,000 shares
Total	1,250,000 shares

2. Number of shares for diluted earnings per share:

Dates Outstanding	Shares Outstanding	Fraction of Year	Weighted Shares
Jan. 1–April 1	800,000	3/12	200,000
April 1–July 1	1,400,000	3/12	350,000
July 1–Dec. 31	1,424,000*	6/12	712,000
Weighted-average number of shares outstanding			1,262,000

*1,400,000 + [(€600,000 ÷ 1,000) X 40]

(b) 1. Earnings for basic earnings per share:

After-tax net income	€1,540,000

2. Earnings for diluted earnings per share:

After-tax net income		€1,540,000
Add back interest on convertible bonds (net of tax):		
Interest	€30,000	
Less income taxes (40%)	12,000	18,000
Total		€1,558,000

[Note to instructor: In this problem, the earnings per share computed for basic earnings per share is €1.23 (€1,540,000 ÷ 1,250,000) and the diluted earnings per share is €1.23. As a result, only one earnings per share number would be presented.]

EXERCISE 16-25 (20–25 minutes)

(a)	Net income for year	$7,500,000
	Add: Adjustment for interest (net of tax)	208,000*
		$7,708,000

*Interest expense	$ 320,000
1 – tax rate (35%)	X .65
After-tax interest	$ 208,000

$4,000,000/$1,000 = 4,000 debentures

Increase in diluted earnings per share denominator:

4,000
X 18
72,000

Earnings per share:

Basic EPS	$7,500,000 ÷ 2,000,000 = $3.75
Diluted EPS	$7,708,000 ÷ 2,072,000 = $3.72

(b) If the convertible security were preference shares, basic EPS would be the same assuming there were no preference dividends declared or the preference shares were noncumulative. For diluted EPS, the numerator would be the net income amount of $7,500,000 and the denominator would be 2,072,000.

EXERCISE 16-26 (10–15 minutes)

(a)	Net income	$240,000
	Add: Interest savings (net of tax) [$210,000 X (1 – .40)]	126,000
	Adjusted net income	$366,000

$3,000,000 ÷ $1,000 = 3,000 bonds
X 15
45,000 shares

Diluted EPS: $366,000 ÷ (100,000 + 45,000) = $2.52

EXERCISE 16-26 (Continued)

(b)

Shares outstanding	100,000
Add: Shares assumed to be issued (10,000* X 5)	50,000
Shares outstanding adjusted for dilutive securities	150,000

*$1,000,000 ÷ $100

Diluted EPS: ($240,000 – $0) ÷ 150,000 = $1.60

Note: Preference dividends are not deducted since preference shares were assumed converted into ordinary shares.

EXERCISE 16-27 (20–25 minutes)

(a)

	Diluted
Shares assumed issued on exercise	1,000
Proceeds (1,000 X £8 = £8,000)	
Less: Treasury shares purchased (£8,000/£20)	400
Incremental shares	600

$$\text{Diluted EPS} = \frac{£40,000}{10,000 + 600} = £3.77 \text{ (rounded)}$$

(b)

	Diluted
Shares assumed issued on exercise	1,000
Proceeds = £8,000	
Less: Treasury shares purchased (£8,000/£20)	400
	600
	X 3/12
Incremental shares	150

$$\text{Diluted EPS} = \frac{£40,000}{10,000 + 150} = £3.94 \text{ (rounded)}$$

EXERCISE 16-28 (10–15 minutes)

(a) The contingent shares would have to be reflected in diluted earnings per share because the earnings level is currently being attained.

(b) Because the earnings level is not being currently attained, contingent shares are not included in the computation of diluted earnings per share.

EXERCISE 16-29 (15–20 minutes)

(a)

	Diluted
The warrants are dilutive because the option price ($10) is less than the average market price ($15).	
Incremental shares = $\frac{\$15 - \$10}{\$15}$ X 30,000 =	10,000
OR	
Proceeds from assumed exercise: (30,000 warrants X $10 exercise price)........................	$300,000
Treasury shares purchasable with proceeds: ($300,000 ÷ $15 average market price)........................	20,000
Incremental shares issued: (30,000 shares issued less 20,000 purchased)...........	10,000

(b) Basic EPS = $2.60
($260,000 ÷ 100,000 shares)

(c) Diluted EPS = $2.36
($260,000 ÷ 110,000 shares)

*EXERCISE 16-30 (15–25 Minutes)

(a) **Schedule of Compensation Expense Share Appreciation Rights**

Date	Fair Value	Cumulative Compensation Recognizable	Percentage Accrued	Compensation Accrued to Date	Expense 2008	Expense 2009	Expense 2010	Expense 2011
12/31/08	$4	$480,000	25%	$ 120,000	$120,000			
				(60,000)		$(60,000)		
12/31/09	1	120,000	50%	60,000				
				930,000			$930,000	
12/31/10	11	1,320,000	75%	990,000				
				90,000				$90,000
12/31/11	9	1,080,000	100%	$1,080,000				

(b) Compensation Expense 90,000
    Liability Under Share Appreciation Plan 90,000

(c) Liability Under Share Appreciation Plan 1,080,000
    Cash (120,000 X $9) 1,080,000

*EXERCISE 16-31 (15–25 Minutes)

(a) **Schedule of Compensation Expense Share Appreciation Rights**

Date	Fair Value	Cumulative Compensation Recognizable	Percentage Accrued	Compensation Accrued to Date	Expense 2009	Expense 2010	Expense 2011	Expense 2012	Expense 2013
12/31/09	$ 6	$240,000	25%	$ 60,000	$60,000				
				120,000		$120,000			
12/31/10	9	360,000	50%	180,000					
				270,000			$270,000		
12/31/11	15	600,000	75%	450,000					
				(130,000)				$(130,000)	
12/31/12	8	320,000	100%	320,000					
				400,000					$400,000
12/31/13	18	720,000	—	$720,000					

(b)

2009		
Compensation Expense	60,000	
Liability Under Share Appreciation Plan..................................		60,000
2012		
Liability Under Share Appreciation Plan...	130,000	
Compensation Expense		130,000
2013		
Compensation Expense	400,000	
Liability Under Share Appreciation Plan..................................		400,000

TIME AND PURPOSE OF PROBLEMS

Problem 16-1 (Time 35–40 minutes)
Purpose—to provide the student with an opportunity to prepare entries to properly account for a series of transactions involving the issuance and exercise of ordinary share rights and detachable share warrants, plus the granting and exercise of share options. The student is required to prepare the necessary journal entries to record these transactions and the equity section of the statement of financial position as of the end of the year.

Problem 16-2 (Time 30–35 minutes)
Purpose—to provide the student with an understanding of the entries to properly account for a share-option plan over a period of years. The student is required to prepare the journal entries when the share-option plan was adopted, when the options were granted, when the options were exercised, and when the options expired.

Problem 16-3 (Time 25–30 minutes)
Purpose—to provide the student with an understanding of the entries to properly account for a share option and restricted share plan. The student is asked to identify the important features of an employee share-purchase plan.

Problem 16-4 (Time 30–35 minutes)
Purpose—to provide the student with an understanding of the effect options and convertible bonds have on the computation of the weighted-average number of shares outstanding with regard to basic EPS and diluted EPS. Preference share dividends must also be computed.

Problem 16-5 (Time 30–35 minutes)
Purpose—to provide the student with an understanding of the proper computation of the weighted-average number of shares outstanding for two consecutive years. The student is also asked to determine whether the capital structure presented is simple or complex. A two-year comparative income statement with appropriate EPS presentation is also required.

Problem 16-6 (Time 35–45 minutes)
Purpose—to provide the student with an opportunity to calculate the number of shares used to compute basic and diluted earnings per share which is complicated by a share dividend, a share split, and several issues of ordinary shares during the year. To be determined are the number of shares to compute basic EPS, the number of shares to compute diluted EPS, and the numerator for computing basic EPS.

Problem 16-7 (Time 25–35 minutes)
Purpose—to provide the student with a problem with multiple dilutive securities which must be analyzed to compute basic and diluted EPS.

Problem 16-8 (Time 30–40 minutes)
Purpose—to provide the student with an opportunity to calculate the weighted-average number of common shares for computing earnings per share and to prepare a comparative income statement including earnings per share data. In addition, the student explains a simple capital structure and the earnings per share presentation for a complex capital structure.

SOLUTIONS TO PROBLEMS

PROBLEM 16-1

(a) 1. Memorandum entry made to indicate the number of rights issued.

2.	Cash	208,000	
	Bonds Payable		192,000
	Share Premium—Share Warrants		16,000
3.	Cash*	304,000	
	Share Capital—Ordinary (9,500 X €10).......		95,000
	Share Premium—Ordinary..........................		209,000

*[(100,000 – 5,000) rights exercised] ÷
(10 rights/share) X €32 = €304,000

4.	Share Premium—Share Warrants		
	(€16,000 X 80%)..	12,800	
	Cash*	48,000	
	Share Capital—Ordinary (1,600 X €10).......		16,000
	Share Premium—Ordinary..........................		44,800

*.80 X €200,000/€100 per bond = 1,600
warrants exercised; 1,600 X €30 = €48,000

5.	Compensation Expense*	100,000	
	Share Premium—Share Options		100,000

*€10 X 10,000 options = €100,000

6. **For options exercised:**

Cash (9,000 X €30)	270,000	
Share Premium—Share Options (90% X €100,000)	90,000	
Share Capital—Ordinary (9,000 X €10)		90,000
Share Premium—Ordinary		270,000

For options lapsed:

Share Premium—Share Options	10,000	
Compensation Expense*		10,000

*(Note to instructor: This entry provides an opportunity to indicate that a credit to Compensation Expense occurs when the employee fails to fulfill an obligation, such as remaining in the employ of the company. Conversely, if a share option lapses because the share price is lower than the exercise price, then a credit to Share Premium—Expired Share Options occurs.)

(b) Equity:

Share Capital—Ordinary €10 par value, authorized 1,000,000 shares, 320,100 shares issued and outstanding	€3,201,000	
Share Premium—Ordinary	1,123,800	
Share Premium—Share Warrants	3,200	€4,328,000
Retained Earnings		750,000
Total Equity		€5,078,000

Calculations:

	Share Capital	Share Premium
At beginning of year	300,000 shares	€ 600,000
From share rights (entry #3)	9,500 shares	209,000
From share warrants (entry #4)	1,600 shares	44,800
From share options (entry #6)	9,000 shares	270,000
Total	320,100 shares	€1,123,800

PROBLEM 16-2

2009 No journal entry would be recorded at the time the share option plan was adopted. However, a memorandum entry in the journal might be made on November 30, 2009, indicating that a share option plan had authorized the future granting to officers of options to buy 70,000 shares of $5 par value common stock at $9 a share.

2010

January 2		
No entry		
December 31		
Compensation Expense	88,000	
Share Premium—Share Options		88,000
(To record compensation expense attributable to 2010—22,000 options at $4)		

2011

December 31		
Compensation Expense	80,000	
Share Premium—Share Options		80,000
(To record compensation expense attributable to 2011—20,000 options at $4)		
Share Premium—Share Options	88,000	
Share Premium—Expired Share Options		88,000
(To record lapse of president's and vice president's options to buy 22,000 shares)		

2012

December 31		
Cash (20,000 X $9)	180,000	
Share Premium—Share Options (20,000 X $4)	80,000	
Share Capital—Ordinary (20,000 X $5)		100,000
Share Premium—Ordinary		160,000
(To record issuance of 20,000 shares of $5 par value stock upon exercise of options at option price of $9)		

PROBLEM 16-3

(a)	1/1/10	No entry		
	12/31/10	Compensation Expense ($6 X 5,000 ÷ 5)	6,000	
		Share Premium—Share Options...........		6,000
(b)	1/1/10	Unearned Compensation ($40 X 700)............	28,000	
		Share Capital—Ordinary ($1 X 700)......		700
		Share Premium—Ordinary		27,300
	12/31/10	Compensation Expense ($28,000 ÷ 5)...........	5,600	
		Unearned Compensation.......................		5,600

(c) No change for part (a), unless the fair value of the options change.

For part (b):

1/10/10	Unearned Compensation ($45 X 700)...........	31,500	
	Share Capital—Ordinary ($1 X 700).....		700
	Share Premium—Ordinary		30,800
12/31/10	Compensation Expense ($31,500 ÷ 5)..........	6,300	
	Unearned Compensation......................		6,300

(d) Employee share-purchase plans generally permit all employees to purchase shares at a discounted price. When employees purchase the shares the entry is similar to the entry recording the sale of shares to shareholders. The one difference is the amount of the discount is recorded as compensation expense. The IASB concluded that since these plans are available only to employees the benefits provided represent employee compensation.

PROBLEM 16-4

The computation of Fitzgerald Pharmaceutical Industries' basic earnings per share and the diluted earnings per share for the fiscal year ended June 30, 2010, are shown below.

(a) Basic earnings per share

$$= \frac{\text{Net income – Preference dividends}}{\text{Average ordinary shares outstanding}}$$

$$= \frac{\$1{,}500{,}000 - \$75{,}000^{1}}{1{,}000{,}000}$$

$$= \frac{\$1{,}425{,}000}{1{,}000{,}000}$$

$$= \underline{\underline{\$1.425}} \text{ or } \underline{\underline{\$1.43}} \text{ per share}$$

[1]Preference dividend = .06 X $1,250,000
= $75,000

(b) Diluted earnings per share

$$= \frac{\text{Net income – Preference dividends + Interest (net of tax)}}{\text{Average ordinary shares + Potentially dilutive ordinary shares}}$$

$$= \frac{\$1{,}500{,}000 - \$75{,}000 + \$270{,}000^{2}}{1{,}000{,}000 + 250{,}000^{3} + 50{,}000^{4}}$$

$$= \frac{\$1{,}695{,}000}{1{,}300{,}000}$$

$$= \underline{\underline{\$1.3038}} \text{ or } \underline{\underline{\$1.30}} \text{ per share}$$

[2]Use "if converted" method for the convertible bonds	
Adjustment for interest expense (net of tax)	
($450,000 X .6)..	$270,000
[3]Shares assumed to be issued if converted	
$5,000,000 ÷ $1,000/bond X 50 shares........................	250,000

PROBLEM 16-4 (Continued)

[4]Use treasury share method to determine incremental shares outstanding

Proceeds from exercise of options (200,000 X $15)	$3,000,000
Shares issued upon exercise of options	200,000
Shares purchasable with proceeds (Proceeds ÷ Average market price) ($3,000,000 ÷ $20)	150,000
Incremental shares outstanding	50,000

PROBLEM 16-5

(a) Melton Corporation has a simple capital structure since it does not have any potentially dilutive securities.

(b) The weighted-average number of shares that Melton Corporation would use in calculating earnings per share for the fiscal years ended May 31, 2010, and May 31, 2011, is 1,600,000 and 2,200,000 respectively, calculated as follows:

Event	Dates Outstanding	Shares Outstanding	Restatement	Fraction of Year	Weighted Shares
Beginning balance	June 1–Oct. 1	1,000,000	1.20	4/12	400,000
New Issue	Oct. 1–May 31	1,500,000	1.20	8/12	1,200,000
					1,600,000

Event	Dates Outstanding	Shares Outstanding	Restatement	Fraction of Year	Weighted Shares
Beginning balance	June 1–Dec. 1	1,800,000		6/12	900,000
New Issue	Dec. 1–May 31	2,600,000		6/12	1,300,000
					2,200,000

(c)

MELTON CORPORATION
Comparative Income Statement
For Fiscal Years Ended May 31, 2010 and 2011

	2010	2011
Income from operations	$1,800,000	$2,500,000
Interest expense[1]	240,000	240,000
Income from continuing operations before taxes	1,560,000	2,260,000
Income taxes at 40%	624,000	904,000
Income from continuing operations	936,000	1,356,000
Discontinued operations loss, net of income taxes of $240,000		360,000
Net income	$ 936,000	$ 996,000
Earnings per share:		
Income from continuing operations	$.55[2]	$.59[3]
Discontinued operations loss		.16[4]
Net income	$.55	$.43[5]

PROBLEM 16-5 (Continued)

[1]**Interest expense = $2,400,000 X .10**
= $240,000

[2]**Earnings per share** $= \dfrac{\textbf{(Net income – Preference dividends)}}{\textbf{Weighted-Average Number of Ordinary Shares}}$

$= \dfrac{(\$936{,}000 - \$60{,}000^*)}{1{,}600{,}000}$

= $\underline{\underline{\$.55}}$ per share

*__Preference dividends__ **= (No. of Shares X Par Value X Dividend %)**
= (20,000 X $50 X .06)
= $60,000 per year

[3]**Earnings per share** $= \dfrac{(\$1{,}356{,}000 - \$60{,}000)}{2{,}200{,}000}$

= $\underline{\underline{\$.59}}$ per share

[4]**Earnings per share** $= \dfrac{\textbf{Discontinued Operations Loss}}{\textbf{Weighted-Average Ordinary Shares}}$

$= \dfrac{\$360{,}000}{2{,}200{,}000}$

= $\underline{\underline{\$.16}}$ per share

[5]**Earnings per share** $= \dfrac{\textbf{Net Income – Preference Dividends}}{\textbf{Weighted-Average Ordinary Shares}}$

$= \dfrac{\$996{,}000 - \$60{,}000}{2{,}200{,}000}$

= $\underline{\underline{\$.43}}$

PROBLEM 16-6

(a) The number of shares used to compute basic earnings per share is 4,951,000, as calculated below.

Event	Dates Outstanding	Shares Outstanding	Restatement	Fraction of Year	Weighted Shares
Beginning Balance, including 5% share dividend	Jan. 1–Apr. 1	2,100,000	2.0	3/12	1,050,000
Conversion of preference share	Apr. 1–July 1	2,520,000	2.0	3/12	1,260,000
Share split	July 1–Aug. 1	5,040,000		1/12	420,000
Issued shares for building	Aug. 1–Nov. 1	5,340,000		3/12	1,335,000
Purchase of treasury shares	Nov. 1–Dec. 31	5,316,000		2/12	886,000
Total number of ordinary shares to compute basic earnings per share					4,951,000

(b) The number of shares used to compute diluted earnings per share is 5,791,000, as shown below.

Number of shares to compute basic earnings per share	4,951,000
Convertible preference shares—still outstanding (300,000 X 2 X 1.05)	630,000
Convertible preference shares—converted (400,000 X 2 X 1.05 X 3/12)	210,000
Number of shares to compute diluted earnings per share	5,791,000

(c) The adjusted net income to be used as the numerator in the basic earnings per share calculation for the year ended December 31, 2011, is $10,350,000, as computed below.

After-tax net income		$11,550,000
Preference share dividends		
March 31 (700,000 X $.75)	$525,000	
June 30, September 30, and December 31 (300,000 X $.75 X 3)	675,000	1,200,000
Adjusted net income		$10,350,000

PROBLEM 16-7

(a) Basic EPS $= \dfrac{\$1{,}200{,}000 - (\$4{,}000{,}000 \text{ X } .06)}{600{,}000^*}$

$= \underline{\underline{\$1.60}}$ per share

*$6,000,000 ÷ $10

(b) Diluted EPS $= \dfrac{\text{(Net income – Preference dividends) + Interest savings (net of tax)}}{\text{Average ordinary shares + Potentially dilutive ordinary shares}}$

$= \dfrac{\$1{,}200{,}000 - \$240{,}000^a + \$97{,}200^b}{600{,}000 + 15{,}000^c + 60{,}000^d}$

$= \dfrac{\$1{,}057{,}200}{675{,}000}$

$= \underline{\underline{\$1.57}}$ per share

[a]Preference shares are not assumed converted since conversion would be antidilutive. That is, conversion of the preference shares increases the numerator $240,000 ($4,000,000 X .06) and the denominator 120,000 shares [(4,000,000 ÷ 100) X 3]

[b]$1,800,000 X .09 X (1 – .40)

[c]$\dfrac{\text{Market price – Option price}}{\text{Market price}}$ X Number of options = incremental shares

$\dfrac{\$25 - \$20}{\$25}$ X 75,000 = 15,000

[d]($2,000,000 ÷ $1,000) X 30 shares/bond

PROBLEM 16-8

(a)

	Weighted-Average Shares	
	Before Share Dividend	After Share Dividend
Total as of June 1, 2009	1,000,000	1,200,000
Issue of September 1, 2009	400,000	480,000
Total as of May 31, 2011	1,400,000	1,680,000

1. 1,200,000 X 3/12 =	300,000
1,680,000 X 9/12 =	1,260,000
Total	1,560,000
2. 1,680,000 X 12/12	1,680,000

(b)

AGASSI CORPORATION
Comparative Income Statement
For the Years Ended May 31, 2011 and 2010

	2011	2010
Income from continuing operations before taxes	$1,400,000	$660,000
Income taxes	560,000	264,000
Income from continuing operations	840,000	396,000
Discontinued operations loss, less applicable income taxes of $160,000	240,000	
Net income	$ 600,000	$396,000
Per share		
Income continuing operations	$.35[1]	$.10[3]
Discontinued operations loss, net of tax	(.14)[4]	–
Net income	$.21[2]	$.10

PROBLEM 16-8 (Continued)

$$\textbf{EPS calculations} = \frac{\textbf{Net income – Preference dividends}}{\textbf{Weighted-average ordinary shares}}$$

Preference dividends = 40,000 X $100 X .06 = $240,000

$$\frac{\textbf{Extraordinary loss}}{\textbf{per share calcuation}} = \frac{\textbf{Loss}}{\textbf{Weighted-average ordinary shares}}$$

[1]($840,000 – $240,000) ÷ 1,680,000 = $.35
[2]($600,000 – $240,000) ÷ 1,680,000 = $.21
[3]($396,000 – $240,000) ÷ 1,560,000 = $.10
[4]$240,000 ÷ 1,680,000 = $.14

(c) 1. A corporation's capital structure is regarded as simple if it consists only of ordinary shares or includes no potentially dilutive securities. Agassi Corporation has a simple capital structure because it has not issued any convertible securities, warrants, or share options, and there are no existing rights or securities that are potentially dilutive of its earnings per share.

2. A corporation having a complex capital structure would be required to make a dual presentation of earnings per share; i.e., both basic earnings per share and diluted earnings per share. This assumes that the potentially dilutive securities are not antidilutive.

The basic earnings per share computation uses only the weighted-average of the ordinary shares outstanding. The diluted earnings per share computation assumes the conversion or exercise of all potentially dilutive securities that are not antidilutive.

TIME AND PURPOSE OF CONCEPTS FOR ANALYSIS

CA 16-1 (Time 15–20 minutes)
Purpose—to provide the student with an opportunity to answer a variety of questions related to convertible debt versus debt with share warrants, adjusting compensation expense for share options, and the rationale for using the treasury share method in EPS computations. The student is also required to explain why companies have to report compensation expense for share purchase plans, and what benefit the employee is receiving.

CA 16-2 (Time 15–20 minutes)
Purpose—to provide the student with an opportunity to discuss the ethical issues related to an earnings–based compensation plan.

CA 16-3 (Time 15–20 minutes)
Purpose—to provide the student with an understanding of the proper accounting and conceptual merits for the issuance of share warrants to three different groups: existing shareholders, key employees, and purchasers of the company's bonds. This problem requires the student to explain and discuss the reasons for using warrants, the significance of the price at which the warrants are issued (or granted) in relation to the current market price of the company's shares and the necessary information that should be disclosed in the financial statements when share warrants are outstanding for each of the groups.

CA 16-4 (Time 25–35 minutes)
Purpose—to provide the student with an opportunity to respond to a contrary view of the IASB's standard on "Accounting for Share-Based Compensation," and to defend the concept of neutrality in financial accounting and reporting.

CA 16-5 (Time 25–35 minutes)
Purpose—to provide the student with an understanding of how earnings per share is affected by preference dividends and convertible debt. The student is required to explain how preference dividends and convertible debt are handled for EPS computations. The student is also required to explain when the "treasury share method" is applicable in EPS computations.

CA 16-6 (Time 25–35 minutes)
Purpose—to provide the student with some familiarity with the applications dealing with earnings per share. The student is required to explain the general concepts of EPS in regard to a specific capitalization structure, and to discuss the proper treatment, if any, that should be given to a list of items in computing earnings per share for financial statement reporting.

CA 16-7 (Time 25–35 minutes)
Purpose—to provide the student with an opportunity to articulate the concepts and procedures related to antidilution. Responses are provided in a written memorandum.

SOLUTIONS TO CONCEPTS FOR ANALYSIS

CA 16-1

(1) Both convertible debt and debt issued with share warrants are accounted for as compound instruments. IFRS requires that compound instruments be separated into their liability and equity components.

Debt issued with warrants is considered a compound instrument whether the share warrants are detachable or non-detachable.

(2) Companies are not permitted to adjust compensation expense when share options become worthless because the share price does not rise since market conditions are reflected in the determination of fair value at the grant date.

(3) The treasury-share method is used to include options and warrants in EPS computations. The proceeds from the assumed exercise of the options or warrants are assumed used to acquire treasury shares at the market price.

(4) Companies report compensation expense for employees share purchase plans because the cost of employee services must be measured as the services are performed. The total compensation cost is allocated to the periods benefited by employees' services.

The employee shares in any dividends paid by the company and can sell the shares if/when the price of the shares goes up.

CA 16-2

(a) Devers recognizes that altering the estimate will benefit Adkins and other executive officers of the company. Current shareholders and investors will be forced to pay out the bonuses, with the altered estimate as a critical factor.

(b) The accountant's decision should not be based on the existence of the compensation plan.

(c) Adkins's request should be denied.

CA 16-3

(a) 1. The objective of issuing warrants to existing shareholders on a pro-rata basis is to raise new equity capital. This method of raising equity capital may be used because of preemptive rights on the part of a company's shareholders and also because it is likely to be less expensive than a public offering.

2. The purpose of issuing share warrants to certain key employees, usually in the form of a non-qualified share option plan, is to increase their interest in the long-term growth and income of the company and to attract new management talent. Also, this issuance of share warrants to key employees under a share-option plan frequently constitutes an important element in a company's executive compensation program. Though such plans result in some dilution of the shareholders' equity when shares are issued, the plans provide an additional incentive to the key employees to operate the company efficiently.

3. Warrants to purchase its ordinary shares may be issued to purchasers of a company's bonds in order to stimulate the sale of the bonds by increasing their speculative appeal and aiding in overcoming the objection that rising price levels cause money invested for long periods in bonds to lose purchasing power. The use of warrants in this connection may also permit the sale of the bonds at a lower interest cost.

CA 16-3 (Continued)

(b) 1. Because the purpose of issuing warrants to existing shareholders is to raise new equity capital, the price specified in the warrants must be sufficiently below the current market price to reasonably assure that they will be exercised. Because the success of the offering depends entirely on the current market price of the company's shares in relation to the exercise price of the warrants, and because the objective is to raise capital, the length of time over which the warrants can be exercised is very short, frequently 60 days.

2. Warrants may be offered to key employees below, at, or above the market price of the shares on the day the rights are granted except for incentive share-option plans. If a share-option plan is to provide a strong incentive, warrants that can be exercised shortly after they are granted and expire, say, within two or three years, usually must be exercisable at or near the market price at the date of the grant. Warrants that cannot be exercised for a number of years after they are granted or those that do not lapse for a number of years after they become exercisable may, however, be priced somewhat above the market price of the shares at the date of the grant without eliminating the incentive feature. This does not upset the principal objective of share option plans, heightening the interest of key employees in the long-term success of the company.

3. Income tax laws impose no restrictions on the exercise price of warrants issued to purchasers of a company's bonds. The exercise price may be above, equal to, or below the current market price of the company's shares. The longer the period of time during which the warrant can be exercised, however, the higher the exercise price can be and still stimulate the sale of the bonds because of the increased speculation appeal. Thus, the significance of the length of time over which the warrants can be exercised depends largely on the exercise price (or prices). A low exercise price in combination with a short exercise period can be just as successful as a high exercise price in combination with a long exercise period.

(c) 1. Financial statement information concerning outstanding share warrants issued to a company's shareholders should include a description of the shares being offered for sale, the option price, the time period during which the rights may be exercised, and the number of rights needed to purchase a new share.

2. Financial statement information concerning share warrants issued to key employees should include the following: status of these plans at the end of each period presented, including the number of shares under option, options exercised and forfeited, the weighted average option prices for these categories, the weighted average fair value of options granted during the year, and the average remaining contractual life of the options outstanding.

3. Financial statement disclosure of outstanding share warrants that have been issued to purchasers of a company's bonds should include the prices at which they can be exercised, the length of time they can be exercised, and the total number of shares that can be purchased by the bondholders.

CA 16-4

(a) Generally, the requirements indicate that employee share options be treated like all other types of compensation and that their value be included in financial statements as part of the costs of employee services. This requires that all types of share options be recognized as compensation based on the fair value of the options. Fair value for public companies would be estimated using an option-pricing model. No adjustments after the grant date would be made for changes in the share price—either up or down.

For both public and nonpublic companies, the value of the award would be charged to expense over the period in which employees provide the related service, which is generally considered the vesting period.

Expense is recognized over the service period with adjustment (reversal) of expense for options that do not vest, if employees do not meet the service requirement.

(b) According to Ciesielski's commentary, the bill in the U.S. Congress would only record expense for the options granted to the top five executives. They also are recommending that the SEC conduct further study of the issue and therefore delay the implementation of the new standard. From a comparability standpoint, it is highly unlikely that recording expense on only some options would result in useful information. It will be difficult to compare compensation costs (and income) for companies—some that use share options extensively and some that pay their employees with cash.

(c) Here is an excerpt from a presentation given by Dennis Beresford (former FASB chair) on the concept of neutrality, which says it well.

The FASB often hears that it should take a broader view, that it must consider the economic consequences of a new accounting standard. The FASB should not act, critics maintain, if a new accounting standard would have undesirable economic consequences. We have been told that the effects of accounting standards could cause lasting damage to American companies and their employees. Some have suggested, for example, that recording the liability for retiree health care or the costs for share-based compensation will place U.S. companies at a competitive disadvantage. These critics suggest that because of accounting standards, companies may reduce benefits or move operations overseas to areas where workers do not demand the same benefits. These assertions are usually combined with statements about desirable goals, like providing retiree health care or creating employee incentives.

There is a common element in those assertions. The goals are desirable but the means require that the Board abandon neutrality and establish reporting standards that conceal the financial impact of certain transactions from those who use financial statements. Costs of transactions exist whether or not the FASB mandates their recognition in financial statements. For example, not requiring the recognition of the cost of share options or ignoring the liabilities for retiree health care benefits does not alter the economics of the transactions. It only withholds information from investors, creditors, policy makers, and others who need to make informed decisions and, eventually, impairs the credibility of financial reports.

One need only look to the collapse of the thrift industry to demonstrate the consequences of abandoning neutrality. During the 1970s and 1980s, regulatory accounting principles (RAP) were altered to obscure problems in troubled institutions. Preserving the industry was considered a greater good.

Many observers believe that the effect was to delay action and hide the true dimensions of the problem. The public interest is best served by neutral accounting standards that inform policy rather than promote it. Stated simply, truth in accounting is always good policy.

CA 16-4 (Continued)

Neutrality does not mean that accounting should not influence human behavior. We expect that changes in financial reporting will have economic consequences, just as economic consequences are inherent in existing financial reporting practices. Changes in behavior naturally follow from more complete and representationally faithful financial statements. The fundamental question, however, is whether those who measure and report on economic events should somehow screen the information before reporting it to achieve some objective. In FASB Concepts Statement No. 2, *Qualitative Characteristics of Accounting Information* (paragraph 102), the Board observed:

> Indeed, most people are repelled by the notion that some "big brother," whether government or private, would tamper with scales or speedometers surreptitiously to induce people to lose weight or obey speed limits or would slant the scoring of athletic events or examinations to enhance or decrease someone's chances of winning or graduating. There is no more reason to abandon neutrality in accounting measurement.

The Board continues to hold that view. The Board does not set out to achieve particular economic results through accounting pronouncements. We could not if we tried. Beyond that, it is seldom clear which result we should seek because our constituents often have opposing viewpoints. Governments, and the policy goals they adopt, frequently change.

CA 16-5

(a) Dividends on outstanding preference shares must be subtracted from net income or added to net loss for the period before computing EPS on the ordinary shares. This generalization will be modified by the various features and different requirements preference shares may have with respect to dividends. Thus, if preference shares are cumulative, it is necessary to subtract their current dividend requirements from net income (or to add them to net loss) regardless of whether or not the preference dividends were actually declared. Where the preference shares are noncumulative, only preference dividends actually declared during the current period need be subtracted from net income (or added to net loss) to arrive at the income to be used in EPS calculations.

In case the preference shares are convertible into ordinary shares when assuming conversion, dividend requirements on the preference shares are not deducted from net income. This applies when testing for potential dilution to determine whether or not the diluted EPS figures for the period are lower than earnings per ordinary share figures.

(b) When options and warrants to buy ordinary shares are outstanding and their exercise price (i.e., proceeds the corporation would derive from issuance of ordinary shares pursuant to the warrants and options) is less than the average price at which the company could acquire its outstanding shares as treasury shares the treasury share method is generally applicable. In these circumstances, existence of the options and warrants would be dilutive. However, if the exercise price of options and warrants exceeded the average price of the ordinary shares, the cash proceeds from their assumed exercise would provide for repurchasing more ordinary shares than were issued when the warrants were exercised, thereby reducing the number of shares outstanding. In these circumstances assumed exercise of the warrants would be antidilutive, so exercise would not be presumed for purposes of computing diluted EPS.

(c) In arriving at the calculation of diluted EPS where convertible debentures are assumed to be converted, their interest (net of tax) is added back to net income as the numerator element of the EPS calculation while the weighted-average number of ordinary shares into which they would be convertible is added to the shares outstanding to arrive at the denominator element of the calculation.

CA 16-6

(a) Earnings per share, as it applies to a corporation with a capitalization structure composed of only one class of ordinary shares is the amount of earnings applicable to each ordinary share outstanding during the period for which the earnings are reported. The computation of earnings per share should be based on a weighted average of the number of shares outstanding during the period with retroactive recognition given to share splits or reverse splits and to share dividends. The computation should be made for income from continuing operations, and net income. Companies that report a discontinued operation, should present a per share amount for this item either on the face of the income statement or in the notes to the financial statements.

(b) Treatments to be given to the listed items in computing earnings per share are:

1. Outstanding preference shares with a par value liquidation right issued at a premium, although affecting the determination of book value per share, will not affect the computation of earnings per ordinary share except with respect to the dividends as discussed in 4. below.

2. The exercise of an ordinary share option results in an increase in the number of shares outstanding, and the computation of earnings per share should be based on the weighted-average number of shares outstanding during the period. The exercise of a share option by the grantee does not affect earnings, but any compensation to the officers from the granting of the options would reduce net income and earnings per share.

3. The replacement of a machine immediately prior to the close of the current fiscal year will not affect the computation of earnings per share for the year in which the machine is replaced. The number of shares remains unchanged and since the old machine was sold for its book value, earnings are unaffected.

4. Dividends declared on preference shares should be deducted from income from continuing operations and net income before computing earnings per share applicable to the ordinary shares and other residual securities. If the preference shares are cumulative, this adjustment is appropriate whether or not the amounts of the dividends are declared or paid.

5. Acquiring treasury shares will reduce the weighted-average number of shares outstanding used in the EPS denominator.

6. When the number of ordinary shares outstanding increases as a result of a 2-for-1 share split during the year, the computation should be based on twice the number of weighted average shares outstanding prior to the share split. Retroactive recognition should be given for all prior years presented.

7. The existence of a provision for a contingent liability on a possible lawsuit created out of retained earnings will not affect the computation of earnings per share since the appropriation of retained earnings does not affect net income or the number of shares outstanding.

CA 16-7

Dear Mr. Dolan:

I hope that the following brief explanation helps you understand why your warrants were not included in Rhode's earnings per share calculations.

Earnings per share (EPS) provides income statement users a quick assessment of the earnings that were generated for each ordinary share outstanding over a given period. When a company issues only ordinary and preference shares, it has a simple capital structure; consequently, the only ratio needed to calculate EPS is the following:

(Net Income – Preference Dividends) ÷ Average Number of Ordinary Shares Outstanding

However, corporations that have outstanding a variety of other securities—convertible bonds, convertible preference shares, share options, and share warrants—have a complex capital structure. Because these securities could be converted to they have a potentially "dilutive" effect on EPS.

In order not to mislead users of financial information, the accounting profession insists that EPS calculations be conservative. Thus, a security which might dilute EPS must be figured into EPS calculations as though it had been converted into common stock. Basic EPS assumes a weighted-average of common stock outstanding while diluted EPS assumes that any potentially dilutive security has been converted.

Some securities, however, might actually inflate the EPS figure rather than dilute it. These securities are considered antidilutive and are excluded from the EPS computation. Take, for example, your warrants. The computations below provide a good example of how options and warrants are treated in diluted EPS. In these computations, we assume that Rhode will purchase treasury shares using the proceeds from the exercise of your warrants.

If we assume that Rhode exercises 30,000 warrants at $30, the company does not simply add 30,000 shares to ordinary shares outstanding; rather, for diluted EPS, Rhode is assumed to purchase and retire 36,000 [(30,000 X $30) ÷ $25] treasury shares at $25 with the proceeds. Therefore, if you add the 30,000 exercised warrants to the ordinary shares outstanding and then subtract the 36,000 shares presumably purchased, the number of shares outstanding would be reduced to 94,000 (100,000 + 30,000 – 36,000). Because the ratio's denominator would be reduced by this inclusion, it would cause the ratio to increase, which defeats the purpose of the assumed exercise. These warrants are considered antidilutive and, therefore, are not included in EPS calculations.

This explanation should address any concerns you may have had about the use of your warrants in EPS calculations. If you have any further questions, please call me.

Sincerely,

Ms. Smart Student
Accountant

FINANCIAL REPORTING PROBLEM

(a) 1. Under M&S's share-based compensation plan 7,716,437 options were granted during 2008.

2. At March 29, 2008, 948,372 options were exercisable by eligible managers.

3. In 2008, 10,212,015 options were exercised at an average price of 234.8p.

4. The options expire 5 years after the date of grant.

5. The accounts to which the proceeds from these option exercises are credited are Share Capital and Share Premium.

6. The number of outstanding options at March 29, 2008, is 28,444,760 at an average exercise price of 403.1p.

(b)

(In millions—except per share)	2008	2007
Weighted average ordinary shares	1,687.3	1,714.9
Diluted earnings per share	48.7p	38.5p

(c) M&S also has a performance share plan, deferred share bonus plan, restricted share plan UK share incentive plan, share matching deal plan, and an M&S employee benefit trust.

COMPARATIVE ANALYSIS CASE

(a) **Cadbury sponsors employee stock option plans.**

Nestle grants stock options to employees under several plans.

(b) **Weighted-Average Number of Shares**

(in millions)	Cadbury	Nestle
2008	1,614	3,725
2007	2,108	3,868

(c) **Diluted Earnings Per Share**

(in millions)	Cadbury	Nestle
2008	22.6p	CHF4.84
2007	19.2p	CHF2.76

INTERNATIONAL REPORTING CASE

(a)

Account	
Current Liabilities	554,114
Convertible Debt	648,020
Total Liabilities	1,228,313
Equity	176,413
Net Income	58,333

Return on Assets	4.15%	= Net Income/Total Assets
Return on Shareholders Equity	33.07%	= Net Income/ Equity
Debt to Assets Ratio	87.44%	= Total Debt/Total Assets

(b) Sepracor is doing very well. Its ROA and ROE are above the industry average. However, its debt level is quite high, compared to the industry. This may suggest it is a riskier investment and may require a higher rate of return than the 5% coupon. Investors likely were attracted to the convertible bonds due to the possibility that Sepracor's share price will increase, and they can cash in on these gains when they convert to ordinary shares.

(c) Under IFRS, the debt and equity components of a convertible bond are separately recorded as liabilities and equity. Assuming an liability component of $398,020, for the Sepracor bonds, the following adjusted amounts would be used in the analysis. Since Bayer, if it had convertible bonds, would allocate the bond amount between debt and equity, the same should be done for Sepracor to make their ratios comparable.

Reclassified:

Account	
Current Liabilities	554,114
Convertible Debt	398,020
Total Liabilities	978,313
Equity	426,413
Net Income	58,333

Return on Assets	4.15%	= Net Income/Total Assets
Return on Ordinary Share Equity	13.68%	= Net Income/ Equity
Debt to Assets Ratio	69.64%	= Total Debt/Total Assets

The adjustment results in Sepracor reporting a higher level of equity and less debt. Although Sepracor reports the same ROA, but lower ROE, the debt to assets ratio is in line with the industry level, suggesting Sepracor may not be as risky as the earlier analysis suggests. The 5% rate may be about right.

ACCOUNTING, ANALYSIS, AND PRINCIPLES

ACCOUNTING

(a) Present value of principal:

($200,000 X .42241)	$ 84,482	
Present value of interest payments ($12,000 X 6.41766)	77,012	
Present value of the liability component	$161,494	
Cash	200,000	
Bonds payable		161,494
Share premium—conversion equity		38,506

Amortization Schedule

Date	Cash Paid	Interest Expense (9%)	Discount Amortized	Carrying Value of Bonds
1/1/11				$161,494
12/31/11	$12,000	$14,534	$2,534	164,028
12/31/12	12,000	14,763	2,763	166,791
12/31/13	12,000	15,011	3,011	169,802

(b)

Basic EPS	2012	2011
Net income	$30,000	$27,000
Outstanding shares	÷10,000	÷10,000
Basic EPS	$ 3.00	$ 2.70

Diluted EPS		
Net income	$30,000	$27,000
Add: Interest savings (see schedule above)	14,763	14,534
Adjusted net income (1)	$44,763	$41,534
Outstanding shares	10,000	10,000
Shares upon conversion	6,000	6,000
Total shares for diluted EPS (2)	16,000	16,000
Diluted EPS (1) ÷ (2)	$2.80	$2.60

(c)	Conversion Expense ($50 X $200)	7,500	
	Share Premium—Conversion Equity	38,506	
	Bonds Payable	166,791	
	Share Capital—Ordinary ($200 X $30 X $2)		12,000
	Share Premium—Ordinary		193,297
	Cash		7,500

ANALYSIS

EPS Presentation

	2012	2011
Net income	$30,000	$27,000
Basic EPS	$ 3.00	$ 2.70
Diluted EPS	$ 2.80	$ 2.60

EPS standards are important to analysts who rely on reported earnings per share numbers in their analyses. A price-earnings (P-E) ratio is the price per share divided by earnings per share. Analysts use P-E ratios in a variety of analyses, including the evaluation of earnings quality and the assessment of a company's growth prospects. The more variation in how companies compute EPS, the less comparable are EPS numbers across companies and across time for the same company.

PRINCIPLES

IFRS for convertible debt primarily differs from U.S. GAAP on convertible debt in that IFRS requires that companies split the proceeds from issuance into a liability component and an equity component. For example, in part (a) Garner estimated the portion of the proceeds attributable to the liability component of the bonds. Under U.S. GAAP the proceeds from Garner's bond issue would be recorded entirely as bonds payable:

Cash	200,000	
Bonds Payable		200,000

Supporters of the IFRS treatment would argue that separating the bond issue into liability and equity components provides more representational faithful information into the financial statements. That is, the resulting financial statements do a better job of representing the underlying economics of the transaction. When bond investors buy bonds with a conversion feature, they are very likely paying something for the option to convert (i.e. investors value the option to become equity holders). Supporters of the U.S. treatment would argue that estimating the value of the conversion option is difficult and that the resulting number is not very reliable. Thus, IFRS potentially sacrifices reliability in favor of representational faithfulness while U.S. GAAP does the reverse.

PROFESSIONAL RESEARCH

(a) IFRS 2 addresses the accounting for share-based payment compensation plans.

(b) The objectives for accounting for stock compensation are (as stated by IFRS 2, paragraph 1): The objective of this IFRS is to specify the financial reporting by an entity when it undertakes a share-based payment transaction. In particular, it requires an entity to reflect in its profit or loss and financial position the effects of share-based payment transactions, including expenses associated with transactions in which share options are granted to employees. IFRS 2, IN5 states the role of fair value measurement: For equity-settled share-based payment transactions, the IFRS requires an entity to measure the goods or services received, unless that fair value cannot be estimated reliably. If the entity cannot estimate reliably the fair value of the goods or services received, the entity is required to measure their value, and the corresponding increase in equity, indirectly, by reference to the fair value of the equity instruments granted.

(c) When the goods or services received or acquired in a share-based payment transaction do not qualify for recognition as assets, they shall be recognised as expenses (par.8).

For equity-settled share-based payment transactions, the entity shall measure the goods or services received, and the corresponding increase in equity, directly, at the fair value of the goods or services received, unless that fair value cannot be estimated reliably. If the entity cannot estimate reliably the fair value of the goods or services received, the entity shall measure their value, and the corresponding increase in equity, indirectly, by reference to the fair value of the equity instruments granted (par. 10).

To apply the requirements of paragraph 10 to transactions with *employees and others providing similar services,*[†] the entity shall measure the fair value of the services received by reference to the fair value of the equity instruments granted, because typically it is not possible to estimate reliably the fair value of the services received, as explained in paragraph 12. The fair value of those equity instruments shall be measured at *grant date* (par. 11).

Typically, shares, share options or other equity instruments are granted to employees as part of their remuneration package, in addition to a cash salary and other employment benefits. Usually, it is not possible to measure directly the services received for particular components of the employee's remuneration package. It might also not be possible to measure the fair value of the total remuneration package independently, without measuring directly the fair value of the equity instruments granted. Furthermore, shares or share options are sometimes granted as part of a bonus arrangement, rather than as a part of basic remuneration, eg as an incentive to the employees to remain in the entity's employ or to reward them for their efforts in improving the entity's performance. By granting shares or share options, in addition to other remuneration, the entity is paying additional remuneration to obtain additional benefits. Estimating the fair value of those additional benefits is likely to be difficult. Because of the difficulty of measuring directly the fair value of the services received, the entity shall measure the fair value of the employee services received by reference to the fair value of the equity instruments granted (par. 12).

PROFESSIONAL SIMULATION

Explanation

(a) The controller's computations were not correct in that the straight arithmetic average of the ordinary shares outstanding at the beginning and end of the year was used.

The weighted-average number of shares outstanding may be computed as follows:

Dates Outstanding	Shares Outstanding	Fraction of Year	Weighted Shares
Jan. 1–Oct. 1	1,285,000	9/12	963,750
Oct. 1–Dec. 1	1,035,000	2/12	172,500
Dec. 1–Dec. 31	1,200,000	1/12	100,000
Weighted-average number of shares outstanding			1,236,250

Net income for year **$3,374,960**

$$\text{Earnings per share} = \frac{\$3,374,960}{1,236,250} = \$2.73$$

Financial Statements

(b)

$$\text{Basic earnings per share} = \frac{\$3,374,960}{1,236,250} = \$2.73$$

$$\text{Diluted earnings per share} = \frac{\$3,374,960}{1,320,250^*} = \$2.56$$

Schedule A

***Computation of weighted-average number of shares adjusted for dilutive securities**

Average number of shares under options outstanding	140,000
Option price per share	X $10
Proceeds upon exercise of options	$1,400,000
Market price of ordinary shares:	
Average	$25
Treasury shares that could be repurchased with proceeds ($1,400,000 ÷ $25)	56,000
Excess of shares under option over treasury shares that could be repurchased (140,000 – 56,000)	84,000
Incremental shares	84,000
Average number of ordinary shares outstanding	1,236,250
Weighted-average number of shares adjusted for dilutive securities	1,320,250

CHAPTER 17

Investments

ASSIGNMENT CLASSIFICATION TABLE (BY TOPIC)

Topics	Questions	Brief Exercises	Exercises	Problems	Concepts for Analysis
1. Debt investments.	1, 2, 3, 13		1		4, 7
(a) Held-for-collection.	4, 5, 6, 8, 11, 13	1, 3, 10	2, 3, 4	1, 2, 7	1, 4
(b) Trading.	2, 4, 7, 8, 9, 22	2, 4	5	1, 3, 4, 7	1, 4
2. Bond amortization.	6, 7	1, 2, 3	3, 4, 5	1, 2	
3. Equity investments.	1, 12, 17		1		4, 7
(a) Non-trading.	16, 22	7, 8	8, 10, 11	5, 6, 8, 9, 10, 12	3
(b) Trading.	8, 9, 14, 15, 16, 22	6	8, 9, 11, 12, 13, 15, 16, 17	3, 5, 6, 8, 9, 10, 11	1, 2, 3
(c) Equity method.	17, 18, 19, 20, 21	9	13, 14, 17, 18	8	5, 6
4. Disclosures of investments.	22		10, 11	5, 8, 9, 10, 11, 12	
5. Fair value option.	10, 11, 25	5	6, 7	2, 7	
6. Impairments.	23, 27	10	19, 20		1, 3
7. Transfers between categories.	24	11			1, 3, 7
8. Comprehensive income.	29	12	21	12	
*9. Derivatives.	30, 31, 32, 33, 34, 35, 36, 37		22, 23, 24, 25, 26, 27	13, 14, 15, 16, 17, 18	

*This material is dealt with in an Appendix to the chapter.

ASSIGNMENT CLASSIFICATION TABLE (BY LEARNING OBJECTIVE)

Learning Objectives	Brief Exercises	Exercises	Problems
1. Describe the accounting framework for financial assets.		1	
2. Understand the accounting for debt investments at amortized cost.	1, 2, 3	2, 3, 4	1, 2, 7
3. Understand the accounting for debt investments at fair value.	2, 4	1, 5,	1, 3, 4, 7
4. Describe the accounting for the fair value option.	5	6, 7	2, 7, 10,
5. Understand the accounting for equity investments at fair value.	6, 7, 8, 12	8, 9, 10, 11, 12, 13, 15, 16, 17,	3, 5, 8, 9, 10, 11, 12
6. Explain the equity method of accounting and compare it to the fair value method for equity securities.	9	13, 14, 17, 18	6, 8
7. Discuss the accounting for impairments of debt investments.	10	19, 20	
8. Describe the accounting for transfer of investments between categories.	11		
*9. Explain why companies report reclassification adjustments.		21	12
*10. Explain who uses derivatives and why.			
*11. Understand the basic guidelines for accounting for derivatives.			
*12. Describe the accounting for derivative financial instruments.		22, 26	13, 14, 15
*13. Explain how to account for a fair value hedge.		23, 25	16, 18
*14. Explain how to account for a cash flow hedge.		24, 27	17

ASSIGNMENT CHARACTERISTICS TABLE

Item	Description	Level of Difficulty	Time (minutes)
E17-1	Investment classifications.	Simple	5–10
E17-2	Debt investments.	Simple	10–15
E17-3	Debt investments.	Simple	15–20
E17-4	Debt investments.	Simple	10–15
E17-5	Debt investments.	Simple	10–15
E17-6	Fair value option.	Simple	5–10
E17-7	Fair value option.	Moderate	15–20
E17-8	Entries for equity investments.	Simple	10–15
E17-9	Equity investments.	Simple	10–15
E17-10	Equity investment entries and reporting.	Simple	5–10
E17-11	Equity investment entries and financial statement presentation.	Simple	10–15
E17-12	Equity investment entries.	Simple	20–25
E17-13	Journal entries for fair value and equity methods.	Simple	15–20
E17-14	Equity method.	Moderate	10–15
E17-15	Equity investments—trading.	Moderate	10–15
E17-16	Equity investments—trading.	Moderate	15–20
E17-17	Fair value and equity method compared.	Simple	15–20
E17-18	Equity method.	Simple	10–15
E17-19	Impairment.	Moderate	15–20
E17-20	Impairment.	Moderate	10–15
E17-21	Comprehensive income disclosure.	Moderate	20–25
*E17-22	Derivative transaction.	Moderate	15–20
*E17-23	Fair value hedge.	Moderate	20–25
*E17-24	Cash flow hedge.	Moderate	20–25
*E17-25	Fair value hedge.	Moderate	15–20
*E17-26	Call option.	Moderate	20–25
*E17-27	Cash flow hedge.	Moderate	25–30
P17-1	Debt investments.	Moderate	20–30
P17-2	Debt investments, fair value option.	Moderate	30–40
P17-3	Debt and equity investments.	Moderate	25–30
P17-4	Debt investments.	Moderate	25–35
P17-5	Equity investment entries and disclosures.	Moderate	25–35
P17-6	Equity investments.	Simple	25–35
P17-7	Debt investment entries.	Moderate	25–35
P17-8	Fair value and equity methods.	Moderate	20–30
P17-9	Financial statement presentation of equity investments.	Moderate	20–30

ASSIGNMENT CHARACTERISTICS TABLE (Continued)

Item	Description	Level of Difficulty	Time (minutes)
P17-10	Equity investments.	Complex	30–40
P17-11	Investments—statement presentation.	Moderate	20–30
P17-12	Gain on sale of investments and comprehensive income.	Moderate	20–30
*P17-13	Derivative financial instrument.	Moderate	20–25
*P17-14	Derivative financial instrument.	Moderate	20–25
*P17-15	Free-standing derivative.	Moderate	20–25
*P17-16	Fair value hedge interest rate swap.	Moderate	30–40
*P17-17	Cash flow hedge.	Moderate	25–35
*P17-18	Fair value hedge.	Moderate	25–35
CA17-1	Issues raised about investments.	Moderate	25–30
CA17-2	Equity investments.	Moderate	25–30
CA17-3	Financial statement effect of investments.	Simple	20–30
CA17-4	Equity investments.	Moderate	20–25
CA17-5	Investment accounted for under the equity method.	Simple	15–25
CA17-6	Equity investments.	Moderate	25–35
CA17-7	Fair value—ethics.	Moderate	25–35

ANSWERS TO QUESTIONS

1. The two criteria for determining the valuation of financial assets are the (1) company's business model for managing their financial assets and (2) contractual cash flow characteristics of the financial asset.

2. Only debt investments such as loans and bond investments are valued at amortized cost. A company should use amortized cost if it has a business model whose objective is to hold assets in order to collect contractual cash flows and the contractual terms of the financial asset gives specified dates to cash flows.

3. Amortized cost is the initial recognition amount of the investment minus repayments, plus or minus cumulative amortization and net of any reduction for uncollectibility.

Fair value is the amount for which an asset could be exchanged between knowledgeable willing parties in an arm's length transaction.

4. Lady Gaga should classify this investment as a trading investment because companies frequently buy and sell this type of investment to generate profits in short term differences in price.

5. If Lady Gaga plans to hold the investment to collect interest and receive the principal at maturity, it should account for this investment at amortized cost.

6. \$3,500,000 X 10% = \$350,000; \$350,000 ÷ 2 = \$175,000. Wheeler would make the following entry:

Cash (\$4,000,000 X 8% X $^1/_2$)	160,000	
Debt Investments	15,000	
Interest Revenue (\$3,500,000 X 10% X $^1/_2$)		175,000

7.

Securities Fair Value Adjustment	89,000	
Unrealized Holding Gain or Loss—Income [\$3,604,000 – (\$3,500,000 + \$15,000)*]		89,000

*See number 6.

8. Unrealized holding gains and losses for trading investments should be included in net income for the current period. Unrealized holding gains and losses are not recognized for held-for-collection investments.

9. (a)

Unrealized Holding Gain or Loss—Income	60,000	
Securities Fair Value Adjustment		60,000

(b)

Unrealized Holding Gain or Loss—Income	70,000	
Securities Fair Value Adjustment		70,000

10. The fair value option allows companies the choice of reporting debt investments at fair value. If this option is chosen, the company records in net income unrealized gains and losses with corresponding increases/decreases to the debt investment. The unrealized gain (loss) is the difference between the investment's amortized cost and its fair value.

11. No, Franklin cannot use the fair value option for this investment. This option is generally available only at the time a company first purchases the investment.

12. Investments in equity securities can be classified as follows:
(a) Holdings of less than 20% (fair value method)—investor has passive interest.
(b) Holdings between 20% and 50% (equity method)—investor has significant influence.
(c) Holdings of more than 50% (consolidated statements)—investor has controlling interest.

Holdings of less than 20% are then classified into trading and non-trading, assuming determinable fair values.

13. Investments in shares do not have a maturity date and therefore cannot be classified as held-for-collection.

14.

Equity Investments	260,000	
Brokerage Expense	1,500	
Cash [(10,000 X $26) + $1,500]		261,500

15.

Gross selling price of 10,000 shares at $27.50	$275,000
Less: Brokerage commissions	(1,770)
Proceeds from sale	273,230
Cost of 10,000 shares	(260,000)
Gain on sale of shares	$ 13,230

Cash	273,230	
Equity Investments		260,000
Gain on Sale of Equity Investment		13,230

16. Both trading and non-trading equity investments are reported at fair value. However, any unrealized holding gain or loss is reported in net income for trading investments but as other comprehensive income and as a separate component of equity for non-trading investments.

17. Significant influence over an investee may result from representation on the board of directors, participation in policy-making processes, material intercompany transactions, interchange of managerial personnel, or technological dependency. An investment (direct or indirect) of 20% or more of the voting shares of an investee constitutes significant influence unless there exists evidence to the contrary.

18. Under the equity method, the investment is originally recorded at cost, but is adjusted for changes in the investee's net assets. The investment account is increased (decreased) by the investor's proportionate share of the earnings (losses) of the investee and decreased by all dividends received by the investor from the investee.

19. The following information is reported under the equity method:

1. Investments originally recorded at cost with adjustment for the investor's share of the investee's income or loss, and decreased by dividends received from the investee (reported under investments.)

2. Investment revenue is recognized equal to the investor's ownership percentage times the investee's income or loss reported subsequent to the date of acquisition (reported under other income and expense).

20. Dividends subsequent to acquisition should be accounted for as a reduction in the equity investment account.

21. Ordinarily, Raleigh Corp. should discontinue applying the equity method and not provide for additional losses beyond the carrying value of £170,000. However, if Raleigh Corp.'s loss is not limited to its investment (due to a guarantee of Borg's obligations or other commitment to provide further financial support or if imminent return to profitable operations by Borg appears to be assured), it is appropriate for Raleigh Corp. to provide for its entire £186,000 share of the £620,000 loss.

22. Trading equity investments are reported as a current asset while non-trading investments are reported as a long-term investment. Trading investments are expected to be disposed of within the coming year and therefore qualify as current assets. This is not the case for non-trading investments which are presented under investments.

23. A debt investment is impaired when "it is probable that the investor will be unable to collect all amounts due according to the contractual terms." When an impairment has occurred, the investment is written down to its fair value, which is also the security's new cost basis. The amount of the writedown is accounted for as a realized loss.

24. When an investment is transferred from one category to another, the transfer should be recorded at fair value, which in this case becomes the new basis for the security.

25. Major unresolved issues related to fair value accounting include measurement based on business model, gains trading, and liabilities not fairly valued.

26. **Similarities include:** (1) The accounting for trading investments is the same between U.S. GAAP and IFRS. Held-to-maturity (U.S. GAAP) and held-for-collection investments are accounted for at amortized cost. Gains and losses related to available-for-sale securities (U.S. GAAP) and non-trading equity investments (IFRS) are reported in other comprehensive income; (2) U.S. GAAP and IFRS are similar in the accounting for the fair value option. That is, the selection to use the fair value method must be made at initial recognition, the selection is irrevocable, and gains and losses related to fair value changes are reported as part of income; (3) Measurement of impairments is similar under U.S. GAAP and IFRS; (4) Both U.S. GAAP and IFRS use the same tests to determine whether the equity method of accounting should be used—that is, significant influence with a general guide of over 20 percent ownership.

Differences include: (1) U.S. GAAP and IFRS have different classifications for investments. U.S. GAAP classifies investments as trading, available-for-sale (both debt and equity investments), and held-to-maturity (only for debt investments). IFRS uses held-for-collection (debt investments), trading (both debt and equity investments), and non-trading equity investments classifications. U.S. GAAP classifications are based on management's intent with respect to the investment. IFRS classifications are based on the business model used to manage the investments and the type of security; (2) Reclassifications in and out of trading securities are allowed under U.S. GAAP if management changes its intent, but this type of reclassification should be rare. Reclassifications of held-to-maturity investments are tightly constrained under U.S. GAAP. IFRS allows reclassifications if the business model for managing the investments changes. Similar to U.S. GAAP, such changes in business model should be rare; (3) The basis for consolidation under IFRS is control. Under U.S. GAAP, a bipolar approach is used, which is a risk-and-reward model (often referred to as a variable-entity approach) and a voting-interest approach. However, under both systems, for consolidation to occur, the investor company must generally own 50 percent of another company (4) U.S. GAAP allows the fair value option for equity method investments; IFRS does not; and (5) U.S. GAAP does not permit the reversal of an important charge related to available-for-sale debt and equity investments. IFRS allows reversals of impairments of held-for-collection investments.

27. (a) Under U.S. GAAP, Ramirez makes no entry, because impaired investments may not be written up if they recover in value. Under IFRS, Ramirez makes the following entry:

(b) Debt Investments	300,000	
Recovery of Loss on Investment		300,000

28. IFRS 9, introduced new investment classifications and increased the situations when investments are accounted for at fair value with gains and losses recorded in income. The IASB's decision to issue new rules on investments before the FASB has completed its deliberations on financial instrument accounting could affect convergence with U.S. GAAP.

*__29.__ Reclassification adjustments are necessary to insure that double counting does not result when realized gains or losses are reported as part of net income but also are shown as part of other comprehensive income in the current period or in previous periods.

*__30.__ An underlying is a special interest rate, security price, commodity price, index of prices or rates, or other market-related variable. Changes in the underlying determine changes in the value of the derivative. Payment is determined by the interaction of the underlying with the face amount and the number of shares, or other units specified in the derivative contract (these elements are referred to as notional amounts).

*__31.__ See illustration below:

Feature	**Traditional Financial Instrument (e.g., Trading Security)**	**Derivative Financial Instrument (e.g., Call Option)**
Payment Provision	Share price times the number of shares.	Change in share price (underlying) times number of shares (notional amount).
Initial Investment	Investor pays full cost.	Initial investment is less than full cost.
Settlement	Deliver shares to receive cash.	Receive cash equivalent, based on changes in share price times the number of shares.

For a traditional financial instrument, an investor generally must pay the full cost, while derivatives require little initial investment. In addition, the holder of a traditional security is exposed to all risks of ownership, while most derivatives are not exposed to all risks associated with ownership in the underlying. For example, the intrinsic value of a call option only can increase in value. Finally, unlike a traditional financial instrument, the holder of a derivative could realize a profit without ever having to take possession of the underlying. This feature is referred to as net settlement and serves to reduce the transaction costs associated with derivatives.

*__32.__ The purpose of a fair value hedge is to offset the exposure to changes in the fair value of a recognized asset or liability or of an unrecognized firm commitment.

*__33.__ The unrealized holding gain or loss on non-trading equity investments should be reported as income when this security is designated as a hedged item in a qualifying fair value hedge. If the hedge meets the special hedge accounting criteria (designation, documentation, and effectiveness), the unrealized holding gain or losses is reported as income.

*__34.__ This is likely a setting where the company is hedging the fair value of a fixed-rate debt obligation. The fixed payments received on the swap will offset fixed payments on the debt obligation. As a result, if interest rates decline, the value of the swap contract increases (a gain), while at the same time the fixed-rate debt obligation increases (a loss). The swap is an effective risk management tool in this setting because its value is related to the same underlying (interest rates) that will affect the value of the fixed-rate bond payable. Thus, if the value of the swap goes up, it offsets the loss in the value of the debt obligation.

*__35.__ A cash flow hedge is used to hedge exposures to cash flow risk, which is exposure to the variability in cash flows. The cash flows received on the hedging instrument (derivative) will offset the cash flows received on the hedged item. Generally, the hedged item is a transaction that is planned some time in the future (an anticipated transaction).

*__36.__ Derivatives used in cash flow hedges are accounted for at fair value on the statement of financial position but gains or losses are recorded in equity as part of other comprehensive income.

*__37.__ A hybrid security is a security that has characteristics of both debt and equity and often is a combination of traditional and derivative financial instruments. A convertible bond is a hybrid security because it is comprised of a debt security, referred to as the host security, combined with an option to convert the bond to ordinary shares, the embedded derivative.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 17-1

(a)	Debt Investments	74,086	
	Cash		74,086
(b)	Cash (€80,000 X .09)	7,200	
	Debt Investments	949	
	Interest Revenue (€74,086 X .11)		8,149

BRIEF EXERCISE 17-2

(a)	Debt Investments	74,086	
	Cash		74,086
(b)	Cash (€80,000 X .09)	7,200	
	Debt Investments	949	
	Interest Revenue (€74,086 X .11)		8,149
(c)	Securities Fair Value Adjustment	465	
	Unrealized Holding Gain or Loss—Income [(€74,086 + €949) – €75,500]		465

BRIEF EXERCISE 17-3

(a)	Debt Investments	65,118	
	Cash		65,118
(b)	Cash (€60,000 X .08 x $^6/_{12}$)	2,400	
	Debt Investments		446
	Interest Revenue (€65,118 X .06 x $^6/_{12}$)		1,954

BRIEF EXERCISE 17-4

(a)	Debt Investments	50,000	
	Cash		50,000
(b)	Cash	2,000	
	Interest Revenue		2,000
(c)	Unrealized Holding Gain or Loss—Income	2,600	
	Securities Fair Value Adjustment ($50,000 – $47,400)		2,600

BRIEF EXERCISE 17-5

Unrealized Holding Gain or Loss—Income	672	
Debt Investments [(€65,118 – €446) – €64,000]		672

BRIEF EXERCISE 17-6

(a) Equity Investments	13,200	
Cash		13,200
(b) Cash	1,300	
Dividend Revenue (400 X £3.25)		1,300
(c) Securities Fair Value Adjustment	600	
Unrealized Holding Gain or Loss—Income [(400 X £34.50) – £13,200]		600

BRIEF EXERCISE 17-7

(a) Equity Investments	13,200	
Cash		13,200
(b) Cash	1,300	
Dividend Revenue (400 X £3.25)		1,300
(c) Securities Fair Value Adjustment	600	
Unrealized Holding Gain or Loss—Equity [(400 X £34.50) – £13,200]		600

BRIEF EXERCISE 17-8

Securities Fair Value Adjustment

Bal.	200	
	500	
Bal.	700	

Securities Fair Value Adjustment	500	
Unrealized Holding Gain or Loss—Equity		500

BRIEF EXERCISE 17-9

Equity Investments	300,000	
Cash		300,000
Equity Investments	54,000	
Revenue from Investment (30% X $180,000)		54,000
Cash	18,000	
Equity Investments (30% X $60,000)		18,000

BRIEF EXERCISE 17-10

Loss on Impairment	10,000	
Debt Investments		10,000

In this case, an impairment has occurred and the individual security should be written down.

BRIEF EXERCISE 17-11

Debt Investments	10,325	
Securities Fair Value Adjustment		10,325

BRIEF EXERCISE 17-12

(a) Other comprehensive income (loss) for 2011: (€20.380 million)

(b) Comprehensive income for 2011: €652.258 million or (€672.638 – €20.380)

(c) Accumulated other comprehensive income: €16.893 million or (€37.273 – €20.380)

SOLUTIONS TO EXERCISES

EXERCISE 17-1 (5–10 minutes)

(a) 2. (b) 4. (c) 2. (d) 1. (e) 1. (f) 4.

EXERCISE 17-2 (10–15 minutes)

(a) January 1, 2010

Debt Investments	300,000	
Cash		300,000

(b) December 31, 2010

Cash	30,000	
Interest Revenue		30,000

(c) December 31, 2011

Cash	30,000	
Interest Revenue		30,000

EXERCISE 17-3 (15–20 minutes)

(a) January 1, 2010

Debt Investments	537,907.40	
Cash		537,907.40

(b) Schedule of Interest Revenue and Bond Premium Amortization
12% Bonds Sold to Yield 10%

Date	Cash Received	Interest Revenue	Premium Amortized	Carrying Amount of Bonds
1/1/10	—	—	—	$537,907.40
12/31/10	$60,000	$53,790.74	$6,209.26	531,698.14
12/31/11	60,000	53,169.81	6,830.19	524,867.95
12/31/12	60,000	52,486.80	7,513.20	517,354.75
12/31/13	60,000	51,735.48	8,264.52	509,090.23
12/31/14	60,000	50,909.77*	9,090.23	500,000.00

*Rounded by 75¢.

EXERCISE 17-3 (Continued)

(c) **December 31, 2010**

Cash	60,000.00	
Debt Investments		6,209.26
Interest Revenue		53,790.74

(d) **December 31, 2011**

Cash	60,000.00	
Debt Investments		6,830.19
Interest Revenue		53,169.81

EXERCISE 17-4 (10–15 minutes)

(a) **Schedule of Interest Revenue and Bond Discount Amortization**
9% Bond Purchased to Yield 12%

Date	Cash Received	Interest Revenue	Bond Discount Amortization	Carrying Amount of Bonds
1/1/10	—	—	—	$278,384.00
12/31/10	$27,000	$33,406.08*	$6,406.08	284,790.08
12/31/11	27,000	34,174.81	7,174.81	291,964.89
12/31/12	27,000	35,035.11**	8,035.11	300,000.00

*$278,384 X .12 = $33,406.08
**Rounded by $.68.

(b) **December 31, 2011**

Cash	27,000.00	
Debt Investments	7,174.81	
Interest Revenue		34,174.81

EXERCISE 17-5 (10–15 minutes)

(a) **January 1, 2010**

Debt Investments	537,907.40	
Cash		537,907.40

EXERCISE 17-5 (Continued)

(b) **December 31, 2010**

Cash	60,000.00	
Debt Investments		6,209.26
Interest Revenue ($537,907.40 X .10)		53,790.74
Securities Fair Value Adjustment	2,501.86	
Unrealized Holding Gain or Loss—Income ($534,200.00 – $531,698.14)		2,501.86

(c) **December 31, 2011**

Unrealized Holding Gain or Loss—Income	12,369.81	
Securities Fair Value Adjustment		12,369.81

	Amortized Cost	Fair Value	Unrealized Holding Gain (Loss)
Debt investments	$524,867.95	$515,000.00	$ (9,867.95)
Previous securities fair value adjustment—Dr.			2,501.86
Securities fair value adjustment—Cr.			$(12,369.81)

EXERCISE 17-6 (5–10 minutes)

(a) **December 31, 2010**

Debt Investments	8,301.86	
Unrealized Holding Gain or Loss—Income ($540,000 – $531,698.14)		8,301.86

EXERCISE 17-6 (Continued)

(b) **December 31, 2011**

Unrealized Holding Gain or Loss-Income	8,169.81	
Debt Investments		
($533,169.81 – $525,000)		8,169.81

Carrying Value at 12/31/10	$540,000.00	
Amortization	(6,830.19)	(See Exercise 17-3)
Carrying Value at 12/31/11	$533,169.81	

EXERCISE 17-7 (15-20 minutes)

(a)	Net income before gains and losses		$100,000
	Investments Debt ($41,000 – $40,000)		1,000
	Bonds payable ($220,000 – $195,000)		25,000
	Net income		$126,000
(b)	Bonds Payable	25,000	
	Unrealized Holding Gain or Loss-Income		
	($220,000 – $195,000)		25,000

EXERCISE 17-8 (10–15 minutes)

(a)	Securities Fair Value Adjustment	3,000	
	Unrealized Holding Gain or Loss—Income		3,000
(b)	Securities Fair Value Adjustment	3,000	
	Unrealized Holding Gain or Loss—Equity.........		3,000

(c) The Unrealized Holding Gain or Loss—Income account is reported in the income statement under Other income and expense. The Unrealized Holding Gain or Loss—Equity account is reported as a part of other comprehensive income and as a component of equity until realized. The Securities Fair Value Adjustment account is added to the cost of the Equity Investments account to arrive at fair value.

EXERCISE 17-9 (10–15 minutes)

(a) December 31, 2010

Unrealized Holding Gain or Loss—Income	1,400	
Securities Fair Value Adjustment		1,400

(b) During 2011

Cash	9,500	
Loss on Sale of Equity Investment	500	
Equity Investments		10,000

(c) December 31, 2011

Investments	Cost	Fair Value	Unrealized Gain (Loss)
Stargate Corp. shares	€20,000	€19,300	€ (700)
Vectorman Co. shares	20,000	20,500	500
Total of portfolio	€40,000	€39,800	(200)
Previous securities fair value adjustment balance—Cr.			(1,400)
Securities fair value adjustment—Dr.			€1,200

Securities Fair Value Adjustment	1,200	
Unrealized Holding Gain or Loss—Income		1,200

EXERCISE 17-10 (5–10 minutes)

The unrealized gains and losses resulting from changes in the fair value of equity investments [classified as non-trading] are recorded in an unrealized holding gain or loss account that is reported as other comprehensive income and as a separate component of equity until realized. Therefore, the following adjusting entry should be made at the year-end:

Unrealized Holding Gain or Loss—Equity	6,000	
Securities Fair Value Adjustment		6,000

Unrealized Holding Gain or Loss—Equity is reported as other comprehensive income and as a separate component in equity and not included in net income. The Securities Fair Value Adjustment account is a valuation account to the related investment account.

EXERCISE 17-11 (10–15 minutes)

(a) The portfolio should be reported at the fair value of $54,500. Since the cost of the portfolio is $53,000, the unrealized holding gain is $1,500, of which $200 is already recognized. Therefore, the December 31, 2010 adjusting entry should be:

Securities Fair Value Adjustment	1,300	
Unrealized Holding Gain or Loss—Income		1,300

(b) The unrealized holding gain of $1,300 should be reported as other income and expense on the income statement and the Securities Fair Value Adjustment account balance of $1,500 should be added to the cost of the investment account.

WENGER, INC.
Statement of Financial Position
As of December 31, 2010

Current assets:	
Equity investment	$54,500

(c) Computation of realized gain or loss on sale of investment:

Net proceeds from sale of investment	$15,300
Cost of investment A	(17,500)
Loss on sale of shares	($ 2,200)

January 20, 2011

Cash	15,300	
Loss on Sale of Equity Investment	2,200	
Equity Investments		17,500

(d)

Securities Fair Value Adjustment	1,300	
Unrealized Holding Gain or Loss—Equity		1,300

EXERCISE 17-12 (20–25 minutes)

(a) The total purchase price of these investments is:

Gonzalez:	(9,000 X $33.50) = $301,500	
Belmont:	(5,000 X $52.00) = $260,000	
Thep:	(7,000 X $26.50) = $185,500	

The purchase entries will be:

January 15, 2011

Commission Expense	1,980	
Equity Investments	301,500	
Cash		303,480

April 1, 2011

Commission Expense	3,370	
Equity Investments	260,000	
Cash		263,370

September 10, 2011

Commission Expense	4,910	
Equity Investments	185,500	
Cash		190,410

(b)

Gross selling price of 3,000 shares at $35	$105,000
Less: Commissions, taxes, and fees	(2,850)
Net proceeds from sale	102,150
Cost of 3,000 shares ($301,500 X 3/9)	(100,500)
Gain on sale of shares	$ 1,650

May 20, 2010

Cash	102,150	
Equity Investment		100,500
Gain on Sale of Equity Investment		1,650

EXERCISE 17-12 (Continued)

(c)

Investments	Cost	Fair Value	Unrealized Gain (Loss)
Gonzalez Co.	$201,000*	$180,000[1]	$(21,000)
Belmont Co.	260,000	275,000[2]	15,000
Thep Co.	185,500	196,000[3]	10,500
Total portfolio value	$646,500	$651,000	4,500
Previous securities fair value adjustment balance			0
Securities fair value adjustment—Dr.			$ 4,500

*$301,500 X 6/9 = $201,000.
[1](6,000 X $30) [2](5,000 X $55) [3](7,000 X $28)

December 31, 2010

Securities Fair Value Adjustment	4,500	
Unrealized Holding Gain or Loss—Income		4,500

EXERCISE 17-13 (15–20 minutes)

Situation 1: Journal entries by Hatcher Cosmetics:

To record purchase of 20,000 shares of Ramirez Fashion at a cost of $14 per share:

March 18, 2010

Equity Investments	280,000	
Cash		280,000

To record the dividend revenue from Ramirez Fashion:

June 30, 2010

Cash	7,500	
Dividend Revenue ($75,000 X 10%)		7,500

EXERCISE 17-13 (Continued)

To record the investment at fair value:

December 31, 2010

Securities Fair Value Adjustment	**20,000**	
Unrealized Holding Gain or Loss—Income		**20,000***

***($15 – $14) X 20,000 shares = $20,000**

Situation 2: Journal entries by Holmes, Inc.:

To record the purchase of 25% of Nadal Corporation's ordinary shares:

January 1, 2010

Equity Investments...	**67,500**	
Cash [(30,000 X 25%) X $9]		**67,500**

Since Holmes, Inc. obtained significant influence over Nadal Corp., Holmes, Inc. now employs the equity method of accounting.

To record the receipt of cash dividends from Nadal Corporation:

June 15, 2010

Cash ($36,000 X 25%)..	**9,000**	
Equity Investments...		**9,000**

To record Holmes's share (25%) of Nadal Corporation's net income of $85,000:

December 31, 2010

Equity Investments (25% X $85,000)...............................	**21,250**	
Revenue from Investment..		**21,250**

EXERCISE 17-14 (10–15 minutes)

(a) $130,000, the increase to the Investment account.

(b) If the dividend payout ratio is 40%, then 40% of the net income is their share of dividends = $52,000. The answer is also given in the T-account information.

(c) Their share is 25%, so, Total Net Income X 25% = $130,000
Total Net Income = $130,000 ÷ 25% = $520,000

(d) $52,000 ÷ 25% = $208,000 or $520,000 X 40% = $208,000

EXERCISE 17-15 (10–15 minutes)

1.	Equity Investments (300 shares X $40)	12,000	
	Cash		12,000
2.	Cash (100 shares X $43)..	4,300	
	Gain on Sale of Equity Investment		300
	Equity Investments (100 X $40)		4,000
3.	Unrealized Holding Gain or Loss—Income	1,000	
	Securities Fair Value Adjustment ($40 – $35) X 200		1,000

EXERCISE 17-16 (15–20 minutes)

(a)	Unrealized Holding Gain or Loss—Income............	5,900	
	Securities Fair Value Adjustment		5,900
(b)	Cash [(1,500 X £45) – £1,200]	66,300	
	Loss on Sale of Equity Investment.........................	5,200	
	Equity Investments..		71,500
(c)	Brokerage Expense...	1,300	
	Equity Investments (700 X £75)...............................	52,500	
	Cash		53,800

EXERCISE 17-16 (Continued)

(d)

Investments	Cost	Fair Value	Unrealized Holding Gain (Loss)
Beilman Corp., Ordinary	£180,000	£175,000	£(5,000)
McDowell Corp., Ordinary	52,500	50,400	(2,100)
Duncan, Inc., Preference	60,000	58,000	(2,000)
Total portfolio	£292,500	£283,400	(9,100)
Previous securities fair value adjustment—Cr.			(5,900)
Securities fair value adjustment—Cr.			£(3,200)

Unrealized Holding Gain or Loss—Income	3,200	
Securities Fair Value Adjustment		3,200

EXERCISE 17-17 (15–20 minutes)

(a)

December 31, 2010

Equity Investments	125,000,000	
Cash		125,000,000

June 30, 2011

Cash	4,000,000	
Dividend Revenue (50,000 X ¥80)		4,000,000

December 31, 2011

Cash	4,000,000	
Dividend Revenue (50,000 X ¥80)		4,000,000
Securities Fair Value Adjustment	10,000,000	
Unrealized Holding Gain or Loss—Income		10,000,000

¥2,700 X 50,000 = ¥135,000,000
¥135,000,000 – ¥125,000,000 = ¥10,000,000

EXERCISE 17-17 (Continued)

(b) **December 31, 2010**

Equity Investments	125,000,000	
Cash..		125,000,000

June 30, 2011

Cash	4,000,000	
Equity Investments...................................		4,000,000

December 31, 2011

Cash	4,000,000	
Equity Investments...................................		4,000,000
Equity Investments	14,600,000	
Revenue from Investment (20% X ¥73,000,000)...............................		14,600,000

(c)

	Fair Value Method	Equity Method
Investment amount (statement of financial position)	¥135,000,000	¥131,600,000*
Dividend revenue (income statement)	8,000,000	0
Unrealized holding gain (income statement)	10,000,000	
Revenue from investment (income statement)		14,600,000

*¥125,000,000 + ¥14,600,000 – ¥4,000,000 – ¥4,000,000

EXERCISE 17-18 (10–15 minutes)

Equity Investments	200,000	
Cash...		200,000
Cash (£20,000 X .25)...	5,000	
Equity Investments..		5,000
Equity Investments	20,000	

Revenue from Investment (.25 X £80,000) 20,000

EXERCISE 17-19 (15–20 minutes)

(a) The entry to record the impairment is as follows:

Loss on Impairment ($800,000 – $740,000)...........	60,000	
Debt Investments...		60,000

(b) The new cost basis is $740,000. If the bonds are impaired, it is inappropriate to increase (amortize) the asset back up to its original maturity value.

(c)

Debt Investments	20,000	
Recovery of Impairment Loss ($760,000 – $740,000)		20,000

EXERCISE 17-20 (10–15 minutes)

(a)

Contractual cash flow [(€400,000 X .10 X 3) + €400,000]		€520,000
Expected cash flow		(455,000)
Cash flow loss		€ 65,000
Recorded investment...		€400,000
Less: Present value of €350,000 due in 3 years at 10% (€350,000 X .75131)	€262,959	
Present value of €35,000 annual interest for 3 years at 10% (€35,000 X 2.48685)	87,040	349,999
Impairment loss..		€ 50,001

(b)

Loss on Impairment	50,001	
Debt Investment...		50,001

EXERCISE 17-20 (Continued)

(c) **Since Komissarov will now receive the contractual cash flow (€520,000) there is no cash flow loss. Therefore Komissarov must reverse the impairment loss by debiting Debt Investments and crediting Recovery of impairment loss.**

*EXERCISE 17-21 (20–25 minutes)

(a)

WENGER, INC.
Statement of Comprehensive Income
For the Year Ended December 31, 2010

Net income		$120,000
Other comprehensive income		
Unrealized holding gain arising during year		1,300
Comprehensive income		$121,300

(b)

WENGER, INC.
Statement of Comprehensive Income
For the Year Ended December 31, 2011

Net income		$140,000
Other comprehensive income		
Holding gains arising during year	$30,000	
Add: Reclassification adjustment for loss included in net income	2,200	32,200
Comprehensive income		$172,200

*EXERCISE 17-22 (15–20 minutes)

(a)	Call Option	300	
	Cash		300
(b)	Unrealized Holding Gain or Loss—Income	100	
	Call Option ($300 – $200)		100
	Call Option	3,000	
	Unrealized Holding Gain or Loss—Income (1,000 X $3)		3,000

(c) **Unrealized Holding Gain: $2,900 ($3,000 – $100)**

***EXERCISE 17-23 (20–25 minutes)**

	(a) 6/30/10	(b) 12/31/10
Fixed-rate debt	€100,000	€100,000
Fixed rate (6% ÷ 2)	X3%	X3%
Semiannual debt payment	€ 3,000	€ 3,000
Swap fixed receipt	(3,000)	(3,000)
Net income effect	€ 0	€ 0
Swap variable rate		
5.7% X 1/2 X €100,000	€ 2,850	
6.7% X 1/2 X €100,000	0	€ 3,350
Net interest expense	€ 2,850	€ 3,350

<u>Note to instructor</u>: An interest rate swap in which a company changes its interest payments from fixed to variable is a fair value hedge because the changes in fair value of both the derivative and the hedged liability offset one another.

***EXERCISE 17-24 (20–25 minutes)**

	(a) 12/31/10	(b) 12/31/11
Variable-rate debt	$10,000,000	$10,000,000
Variable rate	X5.8%	X6.6%
Debt payment	$ 580,000	$ 660,000
Debt payment	580,000	660,000
Swap variable received	(580,000)	(660,000)
Net income effect	$ 0	$ 0
Swap payable—fixed ($10,000 X 6%)	600,000	600,000
Net interest expense	$ 600,000	$ 600,000

<u>Note to instructor</u>: An interest rate swap in which a company changes its interest payments from variable to fixed is a cash flow hedge because interest costs are always the same.

*EXERCISE 17-25 (15–20 minutes)

(a)	Interest Expense	75,000	
	Cash (7.5% X £1,000,000)		75,000
(b)	Cash	13,000	
	Interest Expense		13,000
(c)	Swap Contract	48,000	
	Unrealized Holding Gain or Loss—Income		48,000
(d)	Unrealized Holding Gain or Loss—Income	48,000	
	Note Payable		48,000

*EXERCISE 17-26 (20–25 minutes)

(a)	**August 15, 2010**		
	Call Option	360	
	Cash		360
(b)	**September 30, 2010**		
	Call Option	3,200	
	Unrealized Holding Gain or Loss—Income ($8 X 400)		3,200
	Unrealized Holding Gain or Loss—Income	180	
	Call Option ($360 – $180)		180
(c)	**December 31, 2010**		
	Unrealized Holding Gain or Loss—Income	800	
	Call Option ($2 X 400)		800
	Unrealized Holding Gain or Loss—Income	115	
	Call Option ($180 – $65)		115

***EXERCISE 17-26 (Continued)**

(d)	January 15, 2011		
	Call Option ($1 X 400)	400	
	Unrealized Holding Gain or Loss—Income		400
	Unrealized Holding Gain or Loss—Income	35	
	Call Option ($65 – $30)		35
	Cash (400 X $7)	2,800	
	Loss on Settlement of Call Option	30	
	Call Option*		2,830

*Value of Call Option at settlement:

Call Option	
360	180
3,200	800
400	115
	35
2,830	

***EXERCISE 17-27 (25–30 minutes)**

(a) **May 1, 2010**

Memorandum entry to indicate entering into the futures contract.

(b)	June 30, 2010		
	Futures Contract	400,000	
	Unrealized Holding Gain or Loss—Equity [(¥52,000 – ¥50,000) X 200 ounces]		400,000

(c)	September 30, 2010		
	Futures Contract	100,000	
	Unrealized Holding Gain or Loss—Equity [(¥52,500 – ¥52,000) X 200 ounces]		100,000

***EXERCISE 17-27 (Continued)**

(d) **October 5, 2010**

Titanium Inventory	10,500,000	
Cash (¥52,500 X 200 ounces)		10,500,000
Cash	500,000	
Futures Contract [(¥52,500 – ¥50,000) X 200 ounces]		500,000

Note to instructor: In practice, futures contracts are settled on a daily basis; for our purposes, we show only one settlement for the entire amount.

(e) **December 15, 2010**

Cash	25,000,000	
Sales Revenue		25,000,000
Cost of Goods Sold	14,000,000	
Inventory (Drivers)		14,000,000
Unrealized Holding Gain or Loss—Equity	500,000	
Cost of Goods Sold (¥400,000 + ¥100,000)		500,000

(f)

CHOI GOLF CO.
Partial Income Statement
For the Quarter Ended December 31, 2010

Sales revenue	¥25,000,000
Cost of goods sold	13,500,000*
Gross profit	¥11,500,000
*Cost of inventory	¥14,000,000
Less: Futures contract adjustment	500,000
Cost of goods sold	¥13,500,000

TIME AND PURPOSE OF PROBLEMS

Problem 17-1 (Time 20–30 minutes)
Purpose—the student is required to prepare journal entries and adjusting entries covering a three-year period for debt investments first classified as held-for-collection and then classified as trading. Bond premium amortization is also involved.

Problem 17-2 (Time 30–40 minutes)
Purpose—The student is required to prepare journal entries and adjusting entries for debt investments, along with an amortization schedule and a discussion of financial statement presentation.

Problem 17-3 (Time 25–30 minutes)
Purpose—to provide the student with an understanding of the differentiation in accounting treatments for debt and equity investments. The student is required to prepare the necessary journal entries to properly reflect transactions relating to debt and equity investments.

Problem 17-4 (Time 25–35 minutes)
Purpose—the student is required to distinguish between the existence of a bond premium or discount. The student is also required to prepare the adjusting entries at two year-ends for debt investments.

Problem 17-5 (Time 25–35 minutes)
Purpose—the student is required to prepare journal entries for the sale and purchase of equity investments along with the year-end adjusting entry for unrealized holding gains or losses and to discuss the financial statement presentation.

Problem 17-6 (Time 25–35 minutes)
Purpose—the student is required to prepare during-the-year and year-end entries for trading equity investments and to explain how the entries would differ if the investments were classified as non-trading.

Problem 17-7 (Time 25–35 minutes)
Purpose—the student is required to prepare during-the-year and year-end entries for debt investments and to explain how the entries would differ if the investments were classified as held-for-collection.

Problem 17-8 (Time 20–30 minutes)
Purpose—to provide the student with an understanding of the accounting for trading and equity investments. The student is required to apply the fair value method to both classes of investments and describe how they would be reflected in the body and notes to the financial statements.

Problem 17-9 (Time 20–30 minutes)
Purpose—to provide the student with an understanding of the proper accounting treatment with respect to trading equity investments and the resulting effect of a reclassification from trading to non-trading status. The student is required to discuss the descriptions and amounts which would be reported on the face of the statement of financial position with regard to these investments, plus prepare any necessary note disclosures.

Problem 17-10 (Time 30–40 minutes)
Purpose—to provide the student with an understanding of the reporting problems associated with trading equity investments. Description and amounts that should be reported on a company's comparative financial statements are then required.

Problem 17-11 (Time 20–30 minutes)
Purpose—to provide the student with an understanding of the reporting problems associated with trading equity investments. Description and amounts that should be reported on a company's comparative financial statements are then required.

Problem 17-12 (Time 20–30 minutes)
Purpose—to provide the student with an opportunity to prepare entries for non-trading investment transactions and to report the results in a comprehensive income statement and a statement of financial position.

***Problem 17-13** (Time 20–25 minutes)
Purpose—the student is required to prepare the entries at purchase, throughout the life, and at expiration for a stand alone derivative (call option).

***Problem 17-14** (Time 20–25 minutes)
Purpose—the student is required to prepare the entries at purchase, throughout the life, and at expiration for a stand alone derivative (put option).

***Problem 17-15** (Time 20–25 minutes)
Purpose—the student is required to prepare the entries at purchase, throughout the life, and at expiration for a stand alone derivative (put option).

***Problem 17-16** (Time 30–40 minutes)
Purpose—the student is provided with an opportunity to prepare the entries for a fair value hedge in the context of an interest rate swap, including how the effects of the swap will be reported in the financial statements.

***Problem 17-17** (Time 25–35 minutes)
Purpose—the student is provided with an opportunity to prepare the entries for a cash flow hedge in the context of an option contract on the purchase of inventory, including how the effects of the hedge will be reported in the financial statements.

***Problem 17-18** (Time 25–35 minutes)
Purpose—the student is provided with an opportunity to prepare the entries for a fair value hedge in the context of the use of a put option to hedge a non-trading equity investment, including how the effects for the hedging instrument and hedged item will be reported in the financial statements.

SOLUTIONS TO PROBLEMS

PROBLEM 17-1

(a)	**December 31, 2008**		
	Debt Investments	108,660	
	Cash		108,660
(b)	**December 31, 2009**		
	Cash	7,000	
	Debt Investments		1,567
	Interest Revenue		5,433
(c)	**December 31, 2011**		
	Cash	7,000	
	Debt Investments		1,728
	Interest Revenue		5,272
(d)	**December 31, 2008**		
	Debt Investments	108,660	
	Cash		108,660
(e)	**December 31, 2009**		
	Cash	7,000	
	Debt Investments		1,567
	Interest Revenue		5,433
	Unrealized Holding Gain or Loss—Income ($107,093 – $106,500)	593	
	Securities Fair Value Adjustment		593
(f)	**December 31, 2011**		
	Cash	7,000	
	Debt Investments		1,728
	Interest Revenue		5,272

PROBLEM 17-1 (Continued)

	Amortized Cost	Fair Value	Unrealized Gain (Loss)
Spangler Company, 7% bonds	$103,719	$105,650	$1,931
Previous securities fair value adjustment—Dr.			2,053*
Securities fair value adjustment—Cr.			$ (122)

*($107,500 – $105,447)

Unrealized Holding Gain or Loss—Income................	122	
Securities Fair Value Adjustment		122

PROBLEM 17-2

(a) January 1, 2010 purchase entry:

Debt Investments	369,114	
Cash...		369,114

(b) The amortization schedule is as follows:

Schedule of Interest Revenue and Bond Discount Amortization
8% Bonds Purchased to Yield 10%

Date	Interest Receivable Or Cash Received	Interest Revenue	Bond Discount Amortization	Carrying Amount of Bonds
1/1/10	—	—	—	€369,114
7/1/10	€ 16,000	€ 18,456	€ 2,456	371,570
12/31/10	16,000	18,579	2,579	374,149
7/1/11	16,000	18,707	2,707	376,856
12/31/11	16,000	18,843	2,843	379,699
7/1/12	16,000	18,985	2,985	382,684
12/31/12	16,000	19,134	3,134	385,818
7/1/13	16,000	19,291	3,291	389,109
12/31/13	16,000	19,455	3,455	392,564
7/1/14	16,000	19,628	3,628	396,192
12/31/14	16,000	19,808*	3,808	400,000
Total	€160,000	€190,886	€30,886	

*€2 difference due to rounding.

(c) Interest entries:

July 1, 2010

Cash	16,000	
Debt Investments	2,456	
Interest Revenue..		18,456

December 31, 2010

Interest Receivable	16,000	
Debt Investments	2,579	

Interest Revenue	**18,579**

(d) January 1, 2012 sale entry:

Selling price of bonds...	**€370,726**
Less: Amortized cost (see schedule from (b))	**379,699**
Realized loss on sale of investment....................................	**€ (8,973)**

January 1, 2012

Cash	**370,726**	
Loss on Sale of Debt Investment..........................	**8,973**	
Debt Investments..		**379,699**

(e) December 31, 2010 adjusting entry:

Securities	**Amortized Cost**	**Fair Value**	**Unrealized Gain (Loss)**
Aguirre (total portfolio value)	**€374,149***	**€368,000**	**€(6,149)**

***This is the amortized cost of the bonds on December 31, 2010. See (b) schedule.**

December 31, 2010

Unrealized Holding Gain or Loss—Income..........	**6,149**	
Securities Fair Value Adjustment		**6,149**

PROBLEM 17-3

(a)

Equity Investments	37,400	
Debt Investments	162,000*	
Interest Revenue ($50,000 X .12 X 4/12)	2,000	
Investments		201,400

*[$110,000 + $52,000]

(b) **December 31, 2010**

Interest Receivable	8,025	
Interest Revenue		8,025

[Accrued interest
$50,000 X .12 X 10/12 = $5,000
Accrued interest
$110,000 X .11 X 3/12 = 3,025
$8,025]

(c) **December 31, 2010**
Investment Portfolio

Investments	Cost	Fair Value	Unrealized Gain (Loss)
Sharapova Company shares	$ 37,400	$ 31,800	$(5,600)
Government bonds	110,000	124,700	14,700
McGrath Company bonds	52,000*	58,600	6,600
Total	$197,400	$215,100	15,700
Previous securities fair value adjustment balance			0
Securities fair value adjustment—Dr.			$15,700

PROBLEM 17-3 (Continued)

Securities Fair Value Adjustment	**15,700**	
Unrealized Holding Gain or Loss— Income		**15,700**

(d) **July 1, 2011**

Cash ($119,200 + $3,025)	**122,225**	
Debt Investments..		**110,000**
Interest Revenue ($110,000 X .11 X 3/12) ...		**3,025**
Gain on Sale of Debt Investment		**9,200**

PROBLEM 17-4

(a) **The bonds were purchased at a discount. That is, they were purchased at less than their face value because the bonds' amortized cost increased from $491,150 to $550,000.**

(b) **December 31, 2010**

Securities Fair Value Adjustment............................	4,850	
Unrealized Holding Gain or Loss—Income		4,850

Debt Investment Portfolio

	Amortized Cost	Fair Value	Unrealized Gain (Loss)
Bond Investment	$491,150	$497,000	$5,850
Previous securities fair value adjustment—Dr.			1,000
Securities fair value adjustment—Dr.			$4,850

(c) **December 31, 2011**

Unrealized Holding Gain or Loss—Income	16,292	
Securities Fair Value Adjustment.....................		16,292

Debt Investment Portfolio

	Amortized Cost	Fair Value	Unrealized Gain (Loss)
Bond Investment	$519,442	$509,000	$(10,442)
Previous securities fair value adjustment—Dr.			5,850
Securities fair value adjustment—Cr.			($16,292)

PROBLEM 17-5

(a)

Gross selling price of 3,000 shares at $22............		$66,000
Less: Commissions, taxes, and fees....................		2,150
Net proceeds from sale...		63,850
Cost of 3,000 shares		(58,500)
Gain on sale of shares		$ 5,350

January 15, 2011

Cash	63,850	
Equity Investments..		58,500
Gain on Sale of Equity Investment		5,350

(b) The total purchase price is:
(1,000 X $33.50) = $33,500.

The purchase entry will be:

April 17, 2011

Brokerage Expense...	1,980	
Equity Investments	33,500	
Cash..		35,480

(c) **Equity Investment Portfolio—December 31, 2011**

Investments	Cost	Fair Value	Unrealized Gain (Loss)
Munter Ltd.	$580,000	$610,000	$30,000
King Co.	255,000	240,000	(15,000)
Castle Co.	33,500	29,000	(4,500)
Total of portfolio	$868,500	$879,000	10,500
Previous securities fair value adjustment balance—Cr.			(10,100)
Securities fair value adjustment—Dr.			$20,600

December 31, 2011

Securities Fair Value Adjustment	20,600	
Unrealized Holding Gain or Loss—Income......		20,600

(d) **The unrealized holding gains or losses should be reported on the income statement under other income and expense. This investment would be reported as a current asset on the statement of financial position.**

(e) **If the King Company preference shares are classified as non-trading, the unrealized holding loss would be recorded in other comprehensive income and reported on the statement of financial position under the title "Accumulated other comprehensive income" as a separate component of equity.**

PROBLEM 17-6

(a) (1) October 10, 2010

Cash (5,000 X £54)	270,000	
Gain on Sale of Stock		55,000
Equity Investments		215,000

(2) November 2, 2010

Equity Investments (3,000 X £54.50)	163,500	
Cash		163,500

(3) At September 30, 2010, McElroy had the following fair value adjustment:

Equity Investment Portfolio—September 30, 2010

Investments	Cost	Fair Value	Unrealized Gain (Loss)
Horton, Inc. ordinary	£215,000	£200,000	£ (15,000)
Monty, Inc. preference	133,000	140,000	7,000
Oakwood Corp. ordinary	180,000	179,000	(1,000)
Total of portfolio	£528,000	£519,000	(9,000)
Previous securities fair value adjustment balance			0
Securities fair value adjustment—Cr.			£ (9,000)

At December 31, 2010, McElroy had the following fair value adjustment:

Equity Investment Portfolio—December 31, 2010

Investments	Cost	Fair Value	Unrealized Gain (Loss)
Monty, Inc. preference	£133,000	£106,000	£ (27,000)
Oakwood Corp. ordinary	180,000	193,000	13,000
Patriot ordinary	163,500	132,000	(31,500)
Total of portfolio	£476,500	£431,000	(45,500)
Previous securities fair value adjustment balance—Cr.			(9,000)
Securities fair value adjustment—Cr.			£ (36,500)

The entry on December 31, 2010 is therefore as follows:

Unrealized Holding Gain or Loss—Income	36,500	
Securities Fair Value Adjustment		36,500

(b) The entries would be the same except that instead of debiting and crediting accounts associated with trading investments, the accounts used would be associated with non-trading investments. In addition, the Unrealized Holding Gain or Loss—Equity account is used instead of Unrealized Holding Gain or Loss—Income. The unrealized holding loss in this case would be deducted from the equity section rather than charged to the income statement.

PROBLEM 17-7

(a)

February 1

Debt Investments	300,000	
Interest Revenue (4/12 X .10 X $300,000)	10,000	
Cash		310,000

April 1

Cash	15,000	
Interest Revenue ($300,000 X .10 X 6/12)		15,000

July 1

Debt Investments	200,000	
Interest Revenue (1/12 X .09 X $200,000)	1,500	
Cash		201,500

September 1

Cash [($60,000 X 99%) + ($60,000 X .10 X 5/12)]	61,900	
Loss on Sale of Debt Investment	600	
Debt Investments		60,000
Interest Revenue (5/12 X .10 X $60,000 = $2,500)		2,500

October 1

Cash [($300,000 – $60,000) X .10 X 6/12]	12,000	
Interest Revenue		12,000

December 1

Cash ($200,000 X 9% X 6/12)	9,000	
Interest Revenue		9,000

December 31

Interest Receivable	**7,500**	
Interest Revenue		**7,500**
(3/12 X $240,000 X .10 = $6,000)		
(1/12 X $200,000 X .09 = $1,500)		
($6,000 + $1,500 = $7,500)		

December 31

Unrealized Holding Gain or Loss—Income	**26,000**	
Securities Fair Value Adjustment		**26,000**

Debt Investment Portfolio

Investments	Cost	Fair Value	Unrealized Gain (Loss)
Gibbons Co.	$240,000	$228,000*	$(12,000)
Sampson, Inc.	200,000	186,000**	(14,000)
Total	$440,000	$414,000	$(26,000)

***$240,000 X 95%**
****$200,000 X 93%**

(Note to instructor: Some students may debit Interest Receivable at date of purchase instead of Interest Revenue. This procedure is correct, assuming that when the cash is received for the interest, an appropriate credit to Interest Receivable is recorded.)

(b) All the entries would be the same except the last entry would not be made. In addition, held-for-collection investments would be carried at amortized cost and not valued at fair value at year-end.

(c) If Wildcat elects the fair value option for these investments, they would need to record an unrealized gain or loss each year. The unrealized gain (loss) would be the difference between the investments amortized cost and their year-end fair value.

PROBLEM 17-8

(a) 1. Trading investments:

Unrealized Holding Gain or Loss—Income	**80,000**	
Securities Fair Value Adjustment		**80,000**

2. Non-trading investments:

Securities Fair Value Adjustment	**725,000**	
Unrealized Holding Gain or Loss—Equity		**725,000**

Computations:

1.

Investments	Cost	Fair Value	Unrealized Gain (Loss)
Delaney Motors	$1,400,000	$1,600,000	$ 200,000
Patrick Electric	1,000,000	720,000	(280,000)
Total of portfolio	$2,400,000	$2,320,000	$ (80,000)

2. Computation of Unrealized Gain or Loss in 2009

Investments	Cost	Fair Value	Unrealized Gain (Loss)
Norton Ind.	$22,500,000	$21,500,000	($1,000,000)

Computation of Unrealized Gain or Loss in 2010

Investments	Cost	Fair Value	Unrealized Gain (Loss)
Norton Ind.	$22,500,000	$22,225,000	$ (275,000)
Previous Securities Fair Value Adjustment (Cr)			($1,000,000)
Securities Fair Value Adjustment (Dr)			$ 725,000

PROBLEM 17-8 (Continued)

(b) **The unrealized holding loss on the valuation of Brooks' trading investments is reported on the income statement. The loss would appear in the "Other income and expense" section of the income statement. The Securities Fair Value Adjustment is a valuation account and it will be used to show the reduction in the fair value of the trading investments. The trading investments portfolio is disclosed in the statement of financial position as a current asset and reported at its fair value.**

The unrealized holding gain on the valuation of Brooks' non-trading investments is reported as other comprehensive income and as a separate component of equity. The Securities Fair Value Adjustment account is used to report the change in fair value of the non-trading investments. The fair value of the investments is reported in the Investments section of the statement of financial position. It should be noted that a combined statement of income and comprehensive income or a statement of comprehensive income would report the components of comprehensive income.

(c)

Equity Investments ($500,000 X 25%)	**125,000**	
Investment Revenue		**125,000**
Cash ($100,000 X 25%)	**25,000**	
Equity Investments		**25,000**

With 25%, Brooks has significant influence and should apply the equity method. No fair value adjustments are recorded under the equity method.

PROBLEM 17-9

(a) Equity Investment Portfolio

Investments	Cost	Fair Value	Unrealized Gain (Loss)
Frank, Inc.	$ 22,000	$ 32,000	$ 10,000
Ellis Corp.	115,000	95,000	(20,000)
Mendota Company	124,000	96,000	(28,000)
Total of portfolio	$261,000	$223,000	$(38,000)

Statement of Financial Position—December 31, 2010

Investments:		
Equity investments, at cost	$261,000	
Less: Securities fair value adjustment	38,000	
Equity investments, at fair value		$223,000

Income Statement

Other income and expense	
Unrealized holding loss	$38,000

(b) Equity Investment Portfolio

Investments	Cost	Fair Value	Unrealized Gain (Loss)
Ellis Corp.	$115,000	$140,000	$ 25,000
Mendota Company	174,000*	138,000**	(36,000)
Total of portfolio	$289,000	$278,000	(11,000)
Previous securities fair value adjustment balance—Cr.			(38,000)
Securities Fair Value Adjustment—Dr.			$ 27,000

*(4,000 X $31) + (2,000 X $25)
**[(4,000 + 2,000) X $23]

Statement of Financial Position—December 31, 2011

Investments:		
Equity Investments, at cost	**$289,000**	
Less: Securities fair value adjustment	**11,000**	
Equity Investments, at fair value		**$278,000**

Income Statement

Other income and expense	
Unrealized holding gain	**$27,000**

The Frank investment is transferred to the non-trading investment category at fair value, which is the new cost basis of the investment.

PROBLEM 17-10

(a)

1.	3/1/10	Cash	1,800	
		Dividend Revenue (900 X £2)		1,800
2.	4/30/10	Cash	3,300	
		Gain on Sale of Equity Investment		600*
		Equity Investments		2,700
		*(300 X (£11 – £9))		
3.	5/15/10	Equity Investments	1,600	
		Cash (100 X £16)		1,600
4.	12/31/10	Securities Fair Value Adjustment	8,500	
		Unrealized Holding Gain or Loss—Equity		8,500

Investments	Cost	Fair Value	Unrealized Gain (Loss)
Evers Comp. (£15,000 + £1,600)	£ 16,600	£ 18,700(1)	£2,100
Rogers Comp.	18,000	17,100(2)	(900)
Chance Comp. (£4,500 – £2,700)	1,800	1,600(3)	(200)
Total of Portfolio	£ 36,400	£ 37,400	£1,000
Previous securities fair value adjustment bal.—Cr.			(7,500)
Securities fair value adjustment—Dr.			£8,500

(1)[(1,000 + 100) X £17]   (2)(900 X £19)   (3)[(500 – 300) X £8]

5.	2/1/11	Cash	1,600	
		Loss on Sale of Equity Investment [200 X (£8 – £9)]	200	
		Equity Investments		1,800
6.	3/1/11	Cash	1,800	
		Dividend Revenue		1,800

7.	12/21/11	Dividend Receivable...........................	3,300	
		Dividend Revenue (1,100 X £3)....		3,300
8.	12/31/11	Securities Fair Value Adjustment.......	4,200	
		Unrealized Holding Gain or Loss—Income...........................		4,200

Investments	Cost	Fair Value	Unrealized Gain (Loss)
Evers Comp.	£16,600	£20,900(1)	£4,300
Rogers Comp.	18,000	18,900(2)	900
Total of Portfolio	£34,600	£39,800	£5,200
Previous securities fair value adjustment bal.—Dr.			1,000
Securities fair value adjustment—Dr.			£4,200

(1)(1,100 X £19) (2)(900 X £21)

(b)

Partial Statement of Financial Position as of	December 31, 2010	December 31, 2011
Investments		
Equity Investments, at fair value	£37,400	£39,800
Current Assets		
Dividend Receivable	0	3,300

(c) If the Evers investment was classified as trading, the unrealized holding gain would not be reported as equity. Instead the unrealized gain would be reported in net income.

PROBLEM 17-11

(a) Statement of Financial Position

Equity Investments, at fair value	**€123,000**

Income Statement

Unrealized Holding Loss	
(£127,000 – £123,000)	**€ 4,000**

(b) Statement of Financial Position

Equity Investments, at fair value	**€ 94,000**

Income Statement

Other income and expense	
Loss on Sale of Equity Investment	**€ 1,800***
Unrealized Holding Loss	
[(€136,000 – €94,000) + €4,000*]	**€ 38,000**

***Prior security fair value adjustment balance.**

***The entry made to recognize the loss on sale is as follows:**

Cash	**38,200**	
Loss on Sale of Equity Investment	**1,800**	
Equity Investments		**40,000**

(c) Statement of Financial Position

Equity Investments, at fair value	**€ 88,000**

Income Statement

Other income and expense	
Loss on Sale of Equity Investment	
(€8,100 + €2,700)	**€10,800**
Unrealized Holding Gain	
[€42,000* – (€88,000 – €80,000)]	**€34,000**

The entry made to record the sale of Lindsay Jones' shaves was:

Cash	**39,900**	
Loss on Sale of Equity Investment	**8,100**	
Equity Investments		
(€15,000 + €33,000)		**48,000**

***Prior securities fair value adjustment balance.**

PROBLEM 17-12

(a)

January 1, 2010

Fair value of equity investments	**€240,000**
Accumulated other comprehensive income	**(30,000)**
Cost basis	**€210,000**

December 31, 2010

Fair value of equity investments	**€190,000**
Cost basis	**(140,000)**
Accumulated other comprehensive income	**€ 50,000**

Cash (€70,000 + €30,000)	**100,000**	
Gain on Sale of Equity Investment		**30,000**
Equity Investments		**70,000***

***(€210,000 – €140,000)**

(b)

ACKER INC.
Statement of Comprehensive Income
For the Year Ended December 31, 2010

Net income		**€35,000**
Other comprehensive income		
Total holding gains arising during the year	**€50,000***	
Less: Reclassification adjustment for gains included in income	**30,000**	**20,000**
Comprehensive income		**€55,000**

***Accumulated other comprehensive income 12/31/10**	**€50,000**
Accumulated other comprehensive income 1/1/10	**(30,000)**
Increase in unrealized holding gain	**20,000**
Realized holding gain	**30,000**
Total holding gains arising during period	**€50,000**

PROBLEM 17-12 (Continued)

(c)

ACKER INC.
Statement of Financial Position
As of December 31, 2010

Assets		Equity	
Equity investments	€190,000	Share capital	€260,000
Cash	155,000*	Retained earnings	
		Accumulated other	35,000
		comprehensive income	50,000
Total assets	€345,000	Total equity	€345,000

*Beginning balance	€ 50,000
Dividend revenue	5,000
Cash proceeds on sale	100,000
	€155,000

*PROBLEM 17-13

(a) **July 7, 2010**

Call Option	240	
Cash		240

(b) **September 30, 2010**

Call Option	1,400	
Unrealized Holding Gain or Loss—Income ($7 X 200)		1,400
Unrealized Holding Gain or Loss—Income	60	
Call Option ($240–$180)		60

(c) **December 31, 2010**

Unrealized Holding Gain or Loss—Income	400	
Call Option ($2 X 200)		400
Unrealized Holding Gain or Loss—Income	115	
Call Option ($180 – $65)		115

(d) **January 4, 2011**

Call Option ($1 X 200)	200	
Unrealized Holding Gain or Loss—Income		200
Unrealized Holding Gain or Loss—Income	35	
Call Option ($65 –$30)		35
Cash (200 X $6)	1,200	
Loss on Settlement of Call Option	30	
Call Option*		1,230

*Value of Call Option at Settlement:

Call Option	
240	
1,400	60
200	400
	115
	35
1,230	

*PROBLEM 17-14

(a) **July 7, 2010**

Put Option	240	
Cash		240

(b) **September 30, 2010**

Unrealized Holding Gain or Loss—Income	115	
Put Option ($240 – $125)		115

(c) **December 31, 2010**

Unrealized Holding Gain or Loss—Income	75	
Put Option ($125 – $50)		75

(d) **January 31, 2011**

Unrealized Holding Gain or Loss—Income	50	
Put Option ($50 – $0)		50

*PROBLEM 17-15

(a) **January 7, 2010**

Put Option	360	
Cash		360

(b) **March 31, 2010**

Put Option	2,000	
Unrealized Holding Gain or Loss—Income ($5 X 400)		2,000
Unrealized Holding Gain or Loss—Income	160	
Put Option ($360 – $200)		160

(c) **June 30, 2010**

Unrealized Holding Gain or Loss—Income	800	
Put Option ($2 X 400)		800
Unrealized Holding Gain or Loss—Income	110	
Put Option ($200 – $90)		110

(d) **July 6, 2010**

Put Option ($5 X 400)	2,000	
Unrealized Holding Gain or Loss—Income		2,000
Unrealized Holding Gain or Loss—Income	65	
Put Option ($90 – $25)		65
Cash (400 X $8)	3,200	
Loss on Settlement of Put Option	25	
Put Option*		3,225

*Value of Put Option at settlement:

Put Option

360	
2,000	160
2,000	800
	110
	65
3,225	

*PROBLEM 17-16

(a) (1) No entry necessary at the date of the swap because the fair value of the swap at inception is zero.

(2) **June 30, 2011**

Interest Expense	400,000	
Cash (8% X $10,000,000 X 1/2)		400,000

(3) **June 30, 2011**

Cash	50,000	
Interest Expense		50,000

	Interest Received (Paid)
Swap receivable (8% X $10,000,000 X 1/2)	$ 400,000
Payable at LIBOR (7% X 10,000,000 X 1/2)	(350,000)
Cash settlement	50,000

(4) **June 30, 2011**

Notes Payable	200,000	
Unrealized Holding Gain or Loss—Income		200,000

(5) **June 30, 2011**

Unrealized Holding Gain or Loss—Income	200,000	
Swap Contract		200,000

(b) Financial statement presentation as of December 31, 2010

Statement of Financial Position

Liabilities

Notes Payable $10,000,000

Income Statement

No effect

***PROBLEM 17-16 (Continued)**

(c) Financial statement presentation as of June 30, 2011

Statement of Financial Position

Liabilities		
Notes Payable	$9,800,000	
Swap Contract	200,000	
Income Statement		
Interest expense	$ 350,000	($400,000 – $50,000)
Unrealized Holding Gain— Note Payable	$ 200,000	
Unrealized Holding Loss— Swap	(200,000)	
Total	$ 0	

(d) Financial statement presentation as of December 31, 2011

Statement of Financial Position

Assets		
Swap Contract	$ 60,000	
Liabilities		
Notes Payable	10,060,000	
Income Statement		
Interest expense		
First six months	$ 350,000	[as shown in (c)]
Next six months	375,000*	(see below)
Total	$ 725,000	
Unrealized Holding Gain— Swap	$ 60,000	
Unrealized Holding Loss— Note Payable	(60,000)	
Total	$ 0	

*Swap receivable (8% X 10,000,000 X 1/2)	$ 400,000
Payable at LIBOR (7.5% X 10,000,000 X 1/2)	(375,000)
Cash settlement	$ 25,000

Interest expense unadjusted June 30–December 31, 2011	$ 400,000
Interest expense-adjusted	(375,000)
Cash settlement	$ 25,000

*PROBLEM 17-17

(a) **April 1, 2010**

Memorandum entry to indicate entering into the futures contract.

(b) **June 30, 2010**

Futures Contract	500,000	
Unrealized Holding Gain or Loss—Equity [(¥31,000 – ¥30,000) X 500 ounces]		500,000

(c) **September 30, 2010**

Futures Contract	250,000	
Unrealized Holding Gain or Loss—Equity [(¥31,500 – ¥31,000) X 500 ounces]		250,000

(d) **October 10, 2010**

Gold Inventory	15,750,000	
Cash (¥31,500 X 500 ounces)		15,750,000
Cash	750,000	
Futures Contract [(¥31,500 – ¥30,000) X 500 ounces]		750,000

(e) **December 20, 2010**

Cash	35,000,000	
Sales Revenue		35,000,000
Cost of Goods Sold	20,000,000	
Inventory (Jewelry)		20,000,000
Unrealized Holding Gain or Loss—Equity	750,000	
Cost of Goods Sold (¥500,000 + ¥250,000)		750,000

***PROBLEM 17-17 (Continued)**

(f)

SUZUKI JEWELRY COMPANY
Partial Statement of Financial Position
At June 30, 2010

Current Assets

Futures contract	¥500,000

Equity

Accumulated other comprehensive income	¥500,000

There are no income effects associated with this anticipated transaction in the quarter ended June 30, 2010.

(g)

SUZUKI JEWELRY COMPANY
Income Statement
For the Quarter Ended December 31, 2010

Sales revenue	¥35,000,000
Cost of goods sold	19,250,000*
Gross profit	¥15,750,000

*Cost of inventory	¥20,000,000
Less: Futures contract adjustment	(750,000)
Cost of goods sold	¥19,250,000

*PROBLEM 17-18

(a)	(1)	November 3, 2010		
		Equity Investments	200,000	
		Cash (4,000 X €50)		200,000
		Put Option	600	
		Cash		600
	(2)	December 31, 2010		
		Unrealized Holding Gain or Loss—Income	225	
		Put Option (€600 – €375)		225
	(3)	March 31, 2011		
		Unrealized Holding Gain or Loss—Income	20,000	
		Securities Fair Value Adjustment [(€50 – €45) X 4,000]		20,000
		Put Option	20,000	
		Unrealized Holding Gain or Loss—Income [(€50 – €45) X 4,000]		20,000
		Unrealized Holding Gain or Loss—Income	200	
		Put Option (€375 – €175)		200
	(4)	June 30, 2011		
		Unrealized Holding Gain or Loss—Income	8,000	
		Securities Fair Value Adjustment [(€45 – €43) X 4,000]		8,000
		Put Option	8,000	
		Unrealized Holding Gain or Loss—Income [(€45 – €43) X 4,000]		8,000
		Unrealized Holding Gain or Loss—Income	135	
		Put Option (€175 – €40)		135

***PROBLEM 17-18 (Continued)**

(5) July 1, 2011

Cash (€7 X 4,000)	28,000	
Loss on Settlement of Put Option	40	
Put Option		28,040
Cash (€43 X 4,000)	172,000	
Loss on Sale of Equity Investment	28,000	
Equity Investments		200,000
Securities Fair Value Adjustment	28,000	
Unrealized Holding Gain or Loss—Income		28,000

(b)

SPRINKLE COMPANY
Partial Statement of Financial Position
At December 31, 2010

Assets	
Equity Investments	€200,000
Put Option	375

SPRINKLE COMPANY
Income Statement
For the Year Ended December 31, 2010

Other income and expense	
Unrealized holding loss (Put option)	€(225)

***PROBLEM 17-18 (Continued)**

(c)

SPRINKLE COMPANY
Partial Statement of Financial Position
At June 30, 2011

Assets	
Equity Investments	**€172,000**
Put Option	**28,040**

SPRINKLE COMPANY
Partial Income Statement
For Six Months Ended June 30, 2011

Other income and expense	
Unrealized holding loss (pratt investment)	**€(28,000)**
Unrealized holding gain (put option)	**€ 27,665**
	€ (335)

TIME AND PURPOSE OF CONCEPTS FOR ANALYSIS

CA 17-1 (Time 25–30 minutes)
Purpose—To provide the student with an opportunity to discuss issues related to debt and equity investments**.** For example, the proper accounting for the reclassification of an investment from trading to held-for-collection must be discussed. Four other situations involving debt and equity investments must be addressed.

CA 17-2 (Time 25–30 minutes)
Purpose—To provide the student with an opportunity to discuss the justification for using fair value as a basis for reporting equity investments. In addition, a number of computations are necessary to determine whether the company properly applied IFRS reporting provisions.

CA 17-3 (Time 20–30 minutes)
Purpose—To provide the student with an understanding of the accounting applications dealing with equity investments. This case involves three independent situations for which the student is required to discuss the effects upon classification, carrying value, and earnings.

CA 17-4 (Time 20–25 minutes)
Purpose—To provide the student with an understanding of the conceptual basis for the distinction between classifications of debt and equity investments. The student is required to discuss the factors to be considered in classifying debt and equity investments and how these factors affect the accounting treatment for unrealized losses.

CA 17-5 (Time 15–25 minutes)
Purpose—To allow the student to discuss the equity method of accounting for investments and to provide rationale for this method of accounting.

CA 17-6 (Time 25–35 minutes)
Purpose—To provide the student with an opportunity to discuss the equity method of accounting and provide rationale in a memorandum.

CA 17-7 (Time 25–35 minutes)
Purpose—To provide the student an opportunity to examine the ethical issues related to fair value accounting.

SOLUTIONS TO CONCEPTS FOR ANALYSIS

CA 17-1

Situation 1 IFRS requires that investments that are actively traded be reported on the statement of financial position at their fair value amount. Any changes in the fair value of trading investments from one period to another are included in earnings. Therefore, the $4,200 decrease will be reported on the income statement as an unrealized holding loss.

Situation 2 The investment should be reported in the held-for-collection category at the current fair value. The transfer of the investment does not affect earnings.

Situation 3 The reclassification does not affect earnings and the debt investment will continue to be reported at its fair value.

Situation 4 When a reduction in the fair value of an investment is considered to be an impairment, the new cost basis of the investment is its fair value. The investment is written down to the fair value amount and the loss is included in earnings. In this case, the fair value of the investment at the end of the prior year is the new cost basis. The increase in fair value in the current year will affect earnings and is reported under Other income and expense on the income statement.

Situation 5 The debentures would be classified as trading investments since management's intention is to sell the investment if the price increases. Trading investments are reported on the statement of financial position at their fair value. The unrealized holding loss of $7,700 is included in earnings as other income and expense on the income statement.

CA 17-2

(a) The reporting of these investments at fair value provides the financial statement user with more relevant financial, information. The fair value of the investments is essentially the present value of the investments future cash flows and so this helps investors and creditors assess the entity's liquidity. Also, the fair value of the investments helps the financial statement user to assess the entity's investment strategies. The financial statements of the entity will reflect which investments have increased in fair value and which investments have decreased in fair value. Since these investments have been purchased with the intention of selling them in the near future, the changes in the fair value of the investments are included in earnings. The rationale for this treatment is that trading investments are actively managed and any price changes should be reflected in earnings.

CA 17-2 (Continued)

(b) Lexington Company should record the following journal entry and then report the following amounts on its statement of financial position.

December 31, 2010

Unrealized Holding Gain or Loss—Income	1,100	
Securities Fair Value Adjustment		1,100

Statement of Financial Position—December 31, 2010

Investments:		
Equity Investments, at cost	$49,500	
Less: Securities fair value adjustment	1,100	
Equity Investments, at fair value		$48,400

Investments classified as trading investments should initially be recorded at their acquisition price. The valuation of these investments is subsequently reported at their fair value. Any changes in the fair value of the investments are recorded in an unrealized holding gain or loss account, which is reported in the other income and expense section of the income statement.

(c) No, Lexington Company did not properly account for the sale of the Summerset Company shares. The cost basis of the Summerset shares is still $9,500. Therefore, Lexington should have recorded a $300 ($9,200 – $9,500) loss from the sale of the investment as follows:

Cash	9,200	
Loss on Sale of Equity Investment	300	
Equity Investments		9,500

(d) December 31, 2011

Securities Fair Value Adjustment	1,500	
Unrealized Holding Gain or Loss—Income		1,500

Equity investments are reported at their fair value. Therefore, an adjusting entry must be made to show the $400 excess of fair value over cost in the portfolio. The unrealized holding loss from the previous period must be reversed. As a result, a $1,500 adjustment is needed to correctly state the equity investment portfolio.

Investments	Cost	Fair Value	Unrealized Gain (Loss)
Greenspan Corp. shares	$20,000	$19,900	$ (100)
Tinkers Company shares	20,000	20,500	500
Total of portfolio	$40,000	$40,400	400
Previous fair value adjustment balance—Cr.			(1,100)
Securities fair value adjustment—Dr.			$1,500

CA 17-3

Situation 1 The carrying value of the held-for-collection investment will be the fair value on the date of the transfer.

Situation 2 When a decrease in the fair value of an investment is considered to be permanent, an impairment in the value of the investment has occurred. As a result, the investment is written down to the fair value and this becomes the new cost basis of the investment. The investment is reported on the statement of financial position at its current fair value. The amount of the write-down is included in earnings as a realized loss.

Situation 3 Both the portfolio of trading investments and the portfolio of non-trading investments are reported at their fair value. The $13,500 decrease in fair value of the trading portfolio is recorded in the unrealized holding loss account and **is included** in earnings for the period. The $28,600 increase in fair value of the non-trading portfolio is recorded in the unrealized holding gain account and **is not included** in earnings for the period. Instead, the unrealized holding gain is shown as other comprehensive income and as a separate component of equity.

CA 17-4

(a) A company maintains the different investment portfolios because each portfolio serves a different investment objective. Since each portfolio serves a different objective, the possible risks and returns associated with that objective should be disclosed in the financial statements. This disclosure allows the financial statement user to assess the investment strategies for the company's investments, which when classified as trading investments are designed to return a profit to the entity on the basis of short-term price changes. On the other hand, investments which are classified as held-for-collection are designed to provide a steady stream of interest revenue. Investments which are classified as non-trading include the investments which are not classified in either of the first two categories. The combination of these three categories helps management to disclose in greater detail how it is investing its funds.

(b) The criteria which should be considered when determining how to properly classify investments are: (1) the company's business model for managing their financial assets, and (2) the contractual cash flow characteristics of the financial asset. If management is planning to sell the investment in the near future and to earn its profit on the basis of any price change, then the investment should be classified as a **trading investment**. On the other hand, if a company's business model is to hold assets in order to collect contractual cash flows and the contractual terms give specified dates to cash flows that are solely payments of principal and interest, then the investment should be classified as a **held-for-collection investment.** If the company's business model does not match either of the above categories, then the investment should be classified as a **non-trading investment.**

If a company does not plan to hold trading or non-trading investments until maturity, the investments are reported on the statement of financial position at fair value. Therefore, if the price of the investments decreases while the company is holding the investments, the company may incur an unrealized holding loss. The treatment of the unrealized loss is determined by the classification of the investments. If they are trading investments, the unrealized loss is included in earnings. If they are non-trading investments, the unrealized loss is recorded as other comprehensive income and as a separate component of equity. The rationale for this difference is that trading investments are actively managed and, therefore, any price changes should be included in earnings. Unrealized gains and losses are not recognized on held-for-collection investments (unless the fair value option is selected).

CA 17-5

Since Fontaine Company purchased 40% of Knoblett Company's outstanding ordinary shares, Fontaine is considered to have **significant influence** over Knoblett Company. Therefore, Fontaine will account for this investment using the equity method. The investment is reported on the December 31 statement of financial position as a long-term investment. The account balance includes the initial purchase price plus 40% of Knoblett's net income since the acquisition date of July 1, 2011. The investment account balance will be reduced by 40% of the cash dividends paid by Knoblett. The cash dividends represent a return of Fontaine's investment and, therefore, the investment account is reduced. The income statement will report 40% of Knoblett's net income received by Fontaine as investment income.

Investment in Knoblett Co.	
Cost of investment 40% of Knoblett's income since 7/1/11	40% of cash dividends received from Knoblett

CA 17-6

Memo on accounting treatment to be accorded Investment in Spoor Corporation:

Selig Company should follow the equity method of accounting for its investment in Spoor Corporation because Selig Company is presumed to be able to exercise significant influence over the operating and financial policies of Spoor Corporation due to the size of its investment (40%).

In 2010, Selig Company should report its interest in Spoor Corporation's outstanding ordinary shares as a long-term investment. Following the equity method of accounting, Selig Company should record the cash purchase of 40 percent of Spoor Corporation at acquisition cost.

Forty percent of Spoor Corporation's total net income from July 1, 2010, to December 31, 2010, should be added to the carrying amount of the investment in Selig Company's statement of financial position and shown as revenue in its income statement to recognize Selig Company's share of the net income of Spoor Corporation after the date of acquisition. This amount should reflect adjustments similar to those made in preparing consolidated statements, including adjustments to eliminate intercompany gains and losses.

The cash dividends paid by Spoor Corporation to Selig Company should reduce the carrying amount of the investment in Selig Company's statement of financial position and have no effect on Selig Company's income statement.

CA 17-7

(a) Classifying the investments as they propose will indeed have the effect on net income that they say it will. Classifying all the gains as trading investments will cause all the gains to flow through the income statement this year and classifying the losses as non-trading and held-for-collection will defer the losses from this year's income statement. Classifying the gains and losses just the opposite will have the opposite effect.

(b) What each proposes is unethical since it is knowingly not in accordance with IFRS. The financial statements are fraudulently, not fairly, stated. The affected stakeholders are other members of the company's officers and directors, company employees, the independent auditors (who may detect these misstatements), the shareholders, and prospective investors.

CA 17-7 (Continued)

(c) The act of selling certain investments (those with gains or those with losses) is management's choice and is not per se unethical. IFRS allow the sale of selected investments so long as the inventory method of assigning cost adopted by the company is consistently applied. If the officers act in the best interest of the company and its stakeholders, and in accordance with IFRS, and not in their self-interest, their behavior is probably ethical. Knowingly engaging in unsound and poor business and accounting practices that waste assets or that misstate financial statements is unethical behavior.

FINANCIAL REPORTING PROBLEM

(a) M&S reports both current and non-current "other financial assets," along with both current and non-current derivative financial instruments. These investments are reported on the statement of financial position and in the notes to the financial statements.

(b) M&S's investments are valued at fair value for trading and non-trading, while held-for-collection investments are valued at amortized cost. If there is no quoted price in an active market for a security, and the fair value can't be reliably measured, then the security is held at cost. Derivatives are reported at fair value.

(c) M&S uses derivatives to manage its exposure to fluctuations in interest rates and exchange rates.

COMPARATIVE ANALYSIS CASE

CADBURY and NESTLE (in millions)

(a)

		Cadbury	Nestle
(1)	Cash used in (for) investing activities	£(831)	CHF (4,699)
(2)	Cash used for acquisitions (and disposals)	£ (60)	CHF(10,062)
(3)	Total investment in unconsolidated affiliates at 12-31-08	£ 28	CHF 7,796

(b) (1) Cadbury reported £28 million of equity method investments on its December 31, 2008 statement of financial position. Nestlé reported equity method investments of CHF7,796 million at 12-31-2008.

(2) Cadbury reported available-for-sale investments of 2 million pounds in its December 31, 2008 statement of financial position. It did not report any trading or held-to-maturity securities.

Nestlé did not report any information related to classifications of securities.

Note to instructors: Cadbury & Nestle have not yet adopted IFRS No. 9.

FINANCIAL STATEMENT ANALYSIS CASE

UNION PLANTERS

(a) While banks are primarily in the business of lending money, they also need to balance their asset portfolio by investing in other assets. For example, a bank may have excess cash that it has not yet loaned, which it wants to invest in very short-term liquid assets. Or it may believe that it can earn a higher rate of interest by buying long-term bonds than it can currently earn by making new loans. Or it may purchase investments for short-term speculation because it believes these investments will appreciate in value.

(b) Fair value is the amount for which an asset could be exchanged between knowledge of willing parties in an arm's length transaction. It is used for trading debt investments, equity investments, and when the fair value option is chosen. Amortized cost is the initial amount of the investment minus repayments plus (minus) cumulative amortization and net of any reduction for uncollectibility. It is used when the investments are held-for-collection.

(c) Investments are reported in different categories because these different categories reflect the likelihood that any unrealized gains and losses will eventually be realized by the company. That is, trading investments are held for a short period; thus, if the bank has an unrealized gain on its trading investment portfolio, it is likely that these investments will be sold soon and the gain will be realized. On the other hand, non-trading investments are not going to be sold for a longer period of time; thus, unrealized gains on these investments may not be realized for several years. If investments were all grouped into a single category, the investor would not be aware of these differences in the probability of realization.

(d) The answer to this involves selling your "winner" investments in your non-trading portfolio at year-end. Union Planters could have increased reported net income by $108 million (clearly, a material amount when total reported income was $224 million). Management chose not to sell these investments because at the time it must have felt that either the investments had additional room for price appreciation, or it didn't want to pay the additional taxes that would be associated with a sale at a gain, or it wanted to hold the investments because they were needed to provide the proper asset balance in its management of its total asset portfolio, or it would prefer to report the gain in the following year.

ACCOUNTING, ANALYSIS, AND PRINCIPLES

ACCOUNTING

(a) **Instar's investment in Dorsel Corp. bonds should be classified as held-for-collection because they plan to hold the bonds to collect contractual cash flows until maturity.**

Instar's investment of idle cash in equity investments should be classified as trading.

Instar's investment in its supplier should be classified as a non-trading investment. Instar does not intend to sell it in the short term and thus the investment does not qualify for classification as trading. Instar's ownership stake is far less than 20%, and there is no evidence that Instar can exert significant influence over the supplier, so the investment does not qualify for classification as an equity method investment.

For similar reasons, Instar's investment in Forter Corp. shares should be classified as non-trading.

Instar's investment in Slobbaer Co. shares should be classified as an equity method investment because its holdings are greater than 25% and Instar exerts significant influence over Slobbaer.

(b) **To record the increase in the value of trading securities:**

Securities Fair Value Adjustment	**$120,000**	
Unrealized Holding Gain or Loss—Income ($920,000 – $800,000)		**120,000**

To record the decline in value of the investment in Forter Co.:

Unrealized Holding Gain or Loss—Equity	**13,000**	
Securities Fair Value Adjustment ($200,000 – $187,000)		**13,000**

Cash	**32,000**	
Interest Revenue ($320,000 X 10%)		**32,000**

To record the increase in the value of the investment in the supplier:

Securities Fair Value Adjustment	**350,000**	
Unrealized Holding Gain—Income ($1,550,000 – $1,200,000)		**350,000**

To record the income of the equity-method investee:		
Investment in Slobbaer Co.	**75,000**	
Investment Revenue ($300,000 X 25%).............		**75,000**
To record the dividends received from the equity-method investee:		
Cash ($100,000 X 25%)..	**25,000**	
Investment in Slobbaer Co.		**25,000**

ANALYSIS

The total effect on net income is $120,000 + $350,000 + 32,000 + $75,000 = $577,000. Note that the gains/losses on the non-trading investment is a component of other comprehensive income, not net income reported on Instar's income statement. Note also that the equity method dividends received reduce the carrying value of the investment and are not recorded as revenue or income.

PRINCIPLES

The rationale for reporting held-for-collection securities at amortized cost is that if management intends to hold the investments to maturity, fair values are not relevant for evaluating the cash flows associated with these investments.

On the other hand, if the investments are trading or non-trading, they may be sold before maturity or have such short maturities that information on their fair value is relevant for determining future cash flows.

When a company exercises significant influence over the operations of another company, it is argued that the investor company should use the equity method of accounting. The rationale for this measurement basis is that the investor company should report the net income at the time the investee company earns it. Under the fair value method for non-trading investments, the company does not report income until it receives a dividend or sells the security (although it can increase or decrease other comprehensive income).

PROFESSIONAL RESEARCH

(a) **According to IAS 39, paragraph AG71, "A financial instrument is regarded as quoted in an active market if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis."**

(b) **According to IAS 39, paragraph IN22, "The Standard requires that impairment losses on available-for-sale equity instruments cannot be reversed through profit or loss, i.e. any subsequent increase in fair value is recognised in other comprehensive income." Also, according to paragraph 58, "An entity shall assess at the end of each reporting period whether there is any objective evidence that a financial asset or group of financial assets is impaired. If any such evidence exists, the entity shall apply paragraph 63 (for financial assets carried at amortised cost), paragraph 66 (for financial assets carried at cost) or paragraph 67 (for available-for-sale financial assets) to determine the amount of any impairment loss."**

(c) **According to IFRS 9, paragraph B4.3,**

Although the objective of an entity's business model may be to hold financial assets in order to collect contractual cash flows, the entity need not hold all of those instruments until maturity. Thus an entity's business model can be to hold financial assets to collect contractual cash flows even when sales of financial assets occur. For example, the entity may sell a financial asset if:

1. **the financial asset no longer meets the entity's investment policy (e.g., the credit rating of the asset declines below that required by the entity's investment policy);**

2. **an insurer adjusts its investments portfolio to reflect a change in expected duration (i.e., the expected timing of payouts); or**

3. **an entity needs to fund capital expenditures.**

However, if more than an infrequent number of sales are made out of a portfolio, the entity needs to assess whether and how such sales are consistent with an objective of collecting contractual cash flows.

PROFESSIONAL SIMULATION

Journal Entries

(a)	Equity Investments	37,400	
	Debt Investments	150,000*	
	Interest Revenue ($50,000 X .12 X 4/12)	2,000	
	Investments		189,400

*($100,000 + $50,000)

(b) **December 31, 2010**

Interest Receivable	7,750	
Interest Revenue		7,750**

**Accrued interest: $50,000 X .12 X 10/12 =	$5,000
Accrued interest: $100,000 X .11 X 3/12 =	2,750
	$7,750

Measurement

	A	B	C	D	E	F	G	H	I	J
1			Investment Portfolio							
2			December 31, 2010							
3										
4	Investments		Cost		Fair Value		Unrealized Gain (Loss)			
5	Blossom Company shares		$37,400		$33,800		($3,600)			
6	Government bonds		100,000		124,700		24,700			
7	Buttercup Company bonds		50,000		58,600		8,600			
8	Total		$187,400		$217,100		29,700			
9										
10	Previous securities fair adjustment balance						0			
11	Securities fair value adjustment---Dr.						$29,700			
12										
13	Securities Fair Value Adjustment							29,700		
14		Unrealized Holding Gain or Loss---Income							29,700	
15										
16										

The following function is inserted in the cells in this column:-E2-C2

The following function is inserted into this cell:-E9-C9 or =sum (G6:G8)

Explanation

If Powerpuff owns 30%, it will use the equity method to account for the investment. As a result, this investment would not be reported at fair value and there would be no unrealized holding gains or losses. Under the equity method, the investment carrying amount is periodically increased (decreased) by the investor's proportionate share of the earnings (losses) of the investor and decreased by all dividends received by the investor from the investee.

CHAPTER 18

Revenue

ASSIGNMENT CLASSIFICATION TABLE (BY TOPIC)

Topics	Questions	Brief Exercises	Exercises	Problems	Concepts for Analysis
1. Revenue recognition; measurement and recognition.	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 25	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7, 8, 9	1, 12, 13	1, 2, 3, 4, 5, 7, 8, 9
2. Long-term contracts.	14, 15, 16, 17, 18, 19, 26, 27	8, 9, 10, 11, 12	10, 11, 12, 13, 14, 15, 16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	1, 2, 3, 6
3. Service contracts; multiple deliverable arrangements.	20, 21, 22, 23, 24		17, 18, 19, 20	11, 12	
*4. Franchising.	28, 29, 30	13	21, 22		10

*This material is dealt with in an Appendix to the chapter.

ASSIGNMENT CLASSIFICATION TABLE (BY LEARNING OBJECTIVE)

	Learning Objectives	Brief Exercises	Exercises	Problems
1.	Apply the revenue recognition principle.		6, 7, 8	
2.	Describe accounting issues for revenue recognition at point of sale.	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7, 8, 9, 17	1, 12, 13
3.	Apply the percentage-of-completion method for long-term contracts.	8, 10	10, 11, 12, 13, 14, 15	1, 2, 3, 4, 5, 6, 7, 9, 10
4.	Apply the cost-recovery method for long-term contracts.	9, 11	10, 14, 15, 16	1, 2, 3, 5, 6, 7, 8, 9, 10
5.	Identify the proper accounting for losses on long-term contracts.	12	16	5, 6, 7, 8
6.	Describe the accounting issues for service contracts.		12, 13, 14, 15, 16, 17, 18	1, 13
7.	Identify the proper accounting for multiple deliverable arrangements.		18, 19, 20	11, 12
*8.	Explain revenue recognition for franchise sales.	13	21, 22	

ASSIGNMENT CHARACTERISTICS TABLE

Item	Description	Level of Difficulty	Time (minutes)
E18-1	Revenue recognition-point of sale.	Simple	5–10
E18-2	Revenue recognition-point of sale.	Moderate	5–10
E18-3	Revenue recognition-point of sale.	Simple	5–10
E18-4	Revenue recognition-point of sale.	Simple	10–15
E18-5	Right of return.	Simple	5–10
E18-6	Revenue recognition on book sales with high returns.	Moderate	15–20
E18-7	Sales recorded both gross and net.	Simple	15–20
E18-8	Revenue recognition on marina sales with discounts.	Moderate	10–15
E18-9	Consignment computations.	Simple	15–20
E18-10	Recognition of profit on long-term contracts.	Moderate	20–25
E18-11	Analysis of percentage-of-completion financial statements.	Moderate	10–15
E18-12	Gross profit on uncompleted contract.	Simple	10–12
E18-13	Recognition of profit, percentage-of-completion.	Moderate	25–30
E18-14	Recognition of revenue on long-term contract and entries.	Moderate	15–20
E18-15	Recognition of profit and statement of financial position amounts for long-term contracts.	Simple	15–25
E18-16	Long-term contract reporting.	Simple	15–25
E18-17	Service arrangement.	Simple	10–15
E18-18	Multiple deliverable arrangement.	Simple	5–10
E18-19	Multiple deliverable arrangement.	Moderate	10–15
E18-20	Multiple deliverable arrangement.	Simple	5–10
*E18-21	Franchise entries.	Simple	14–18
*E18-22	Franchise fee, initial down payment.	Simple	12–16
P18-1	Comprehensive three-part revenue recognition.	Moderate	30–45
P18-2	Recognition of profit on long-term contract.	Simple	20–25
P18-3	Recognition of profit and entries on long-term contract.	Moderate	25–35
P18-4	Recognition of profit and statement of financial position presentation, percentage-of-completion.	Moderate	20–30
P18-5	Cost-recovery and percentage-of-completion with interim loss.	Moderate	25–30
P18-6	Long-term contract with interim loss.	Moderate	20–25
P18-7	Long-term contract with an overall loss.	Moderate	20–25
P18-8	Cost-recovery method.	Moderate	20–30
P18-9	Revenue recognition methods—comparison.	Complex	40–50
P18-10	Comprehensive problem—long-term contracts.	Complex	50–60
P18-11	Multiple deliverable arrangement.	Moderate	15–20
P18-12	Revenue recognition-various.	Moderate	15–20
P18-13	Revenue recognition-various.	Moderate	15–20

ASSIGNMENT CHARACTERISTICS TABLE (Continued)

Item	Description	Level of Difficulty	Time (minutes)
CA18-1	Revenue recognition—alternative methods.	Moderate	20–30
CA18-2	Recognition of revenue—theory.	Moderate	35–45
CA18-3	Recognition of revenue—theory.	Moderate	25–30
CA18-4	Recognition of revenue—bonus dollars.	Moderate	30–35
CA18-5	Recognition of revenue from subscriptions.	Complex	35–45
CA18-6	Long-term contract—percentage-of-completion.	Moderate	20–25
CA18-7	Revenue recognition—real estate development.	Moderate	30–40
CA18-8	Revenue recognition, ethics	Moderate	25–30
CA18-9	Revenue recognition—membership fees, ethics	Moderate	20–25
*CA18-10	Franchise revenue.	Moderate	35–45

ANSWERS TO QUESTIONS

1. A recent survey of financial executives noted that the revenue recognition process is increasingly more complex to manage, prone to error, and material to financial statements compared to any other area in financial reporting. Both the IASB and the FASB indicate that the present state of reporting for revenue is not satisfactory. IFRS is criticized because it lacks guidance on revenue recognition while U.S. GAAP has numerous, but often inconsistent, standards related to revenue recognition.

2. A major criticism of IFRS regarding revenue recognition is it lacks guidance. IFRS has only one basic standard on revenue recognition.

3. The revenue recognition principle indicates that revenue is recognized when it is probable that the economic benefits will flow to the company and the benefits can be measured reliably.

4. Revenues are recognized generally as follows:
(a) Revenue from selling products—date of delivery to customers.
(b) Revenue from services rendered—when the services have been performed and are billable.
(c) Revenue from permitting others to use enterprise assets—as time passes or as the assets are used.
(d) Revenue from disposing of assets other than products—at the date of sale.

5. Revenue should be measured at the fair value of consideration received or receivable. Any trade discounts or volume rebates should reduce consideration received or receivable and the related revenue.

6. Volume discounts on sales of products reduce consideration received or receivable and the related revenue.

7. In bartering transactions, if the goods (services) that are exchanged are dissimilar in nature, the exchange is recorded as revenue. If similar, revenue is not reported.

8. Bill and hold sales result when the buyer is not yet ready to take delivery but the buyer takes title and accepts billing. Revenue is recognized at the time title passes, provided (1) it is probable that delivery will be made, (2) the item is on hand and ready for delivery at the time the sale is recognized, (3) the buyer acknowledges the deferred delivery arrangement, and (4) the usual payment terms apply.

9. Layaway sales occur when companies sell goods on the installment basis and hold the goods until the final payment is made.

Revenue is generally recognized when the goods are delivered. However, revenue may be recognized at the time of sale when a significant deposit is received, provided the goods are on hand and ready for delivery to the buyer.

10. If a company sells a product in one period and agrees to buy it back in the next period, legal title has transferred, but the economic substance of the transaction is that the seller retains the risks of ownership. When this occurs, the transaction is a financing arrangement and does not give rise to revenue.

11. The two accounting methods available to a seller exposed to continued risks of ownership through return of product are: (1) not recording a sale until all return privileges have expired, and (2) recording the sale, but reducing sales by an estimate of future returns.

12. In a principal-agent relationship, amounts collected on behalf of the principal are not revenue of the agent. The revenue for the agent is the amount of the commission it receives.

13. A sale on consignment involves manufacturers (or wholesalers) delivering goods to the consignee (dealer) but retaining title to the goods until they are sold.

Revenue is recognized from a consignment sale by the consignor (manufacturer) only after receiving notification of sale from the consignee.

14. The two basic methods of accounting for long-term construction contracts are: (1) the percentage-of-completion method and (2) the cost-recovery method.

The percentage-of-completion method is preferable when estimates of costs to complete and extent of progress toward completion of long-term contracts are reasonably dependable. The percentage-of-completion method should be used in circumstances when **reasonably dependable estimates can be made and:**

(1) The contract clearly specifies the enforceable rights regarding goods or services to be provided and received by the parties, the consideration to be exchanged, and the manner and terms of settlement.
(2) The buyer can be expected to satisfy all obligations under the contract.
(3) The contractor can be expected to perform the contractual obligation.

The cost-recovery method is preferable when the lack of dependable estimates or inherent hazards cause forecasts to be doubtful.

15. $$\frac{\text{Costs Incurred}}{\text{Total Estimated Cost}} \text{ X Total Revenue = Revenue Recognized}$$

$$\frac{\$8 \text{ million}}{\$50 \text{ million}} \text{ X } \$60{,}000{,}000 = \underline{\underline{\$9{,}600{,}000}}$$

Revenue Recognized – Actual Cost Incurred = Gross Profit Recognized
$9,600,000 – $8,000,000 = $\underline{\underline{\$1{,}600{,}000}}$

16. The methods used to determine the extent of progress toward completion are the cost-to-cost method and units-of-delivery method. Costs incurred and labor hours worked are examples of **input measures,** while tons produced, stories of a building completed, and miles of highway completed are examples of **output measures.**

17. The two types of losses that can become evident in accounting for long-term contracts are:

(1) A current period loss involved in a contract that, upon completion, is expected to produce a profit.
(2) A loss related to an unprofitable contract.

The first type of loss is actually an adjustment in the current period of gross profit recognized on the contract in prior periods. It arises when, during construction, there is a significant increase in the estimated total contract costs but the increase does not eliminate all profit on the contract. Under the percentage-of-completion method, the estimated cost increase necessitates a current period adjustment of previously recognized gross profit; the adjustment results in recording a current period loss. No adjustment is necessary under the cost-recovery method because gross profit is only recognized upon completion of the contract.

Cost estimates at the end of the current period may indicate that a loss will result upon completion of the entire contract. Under both methods, the entire loss must be recognized in the current period.

18. The dollar amount of difference between the Construction in Process and the Billings on Construction in Process accounts is reported in the statement of financial position as a current asset if a debit and as a current liability if a credit. When the balance in Construction in Process exceeds the billings, this excess is reported as a current asset, "Costs and Recognized Profit in Excess of Billings." When the billings exceed the Construction in Process balance, the excess is reported as a current liability, "Billings in Excess of Costs and Recognized Profit."

19. Under the cost-recovery method, revenue is recognized up to the amount of costs. However, no gross profit is recognized in the income statement until the contract is complete.

20. Revenue recognition criteria used to record service contracts include: it must be reliably measurable, economic benefits are probable, stage of completion must be reliably measurable, and costs must be reliably measurable.

21. (a) An equal amount of revenue would be recorded for each act expected to be performed.

(b) Revenue is recognized on the percentage of completion basis using some appropriate measure such as cost incurred to total costs to determine percentage of completion.

(c) Revenue is recognized on a straight-line basis over the specified period unless there is evidence that another method is more representative of the pattern of performance.

22. A multiple deliverable arrangement provides multiple products or services to customers as part of a single arrangement. The major accounting issue related to this type of arrangement is how to allocate the revenue to the various products and services.

23. Once the separate units of a multiple deliverable arrangement are determined, the amount paid for the arrangement is allocated among the separate units based on relative fair value. A company determines fair value based on what the vendor could sell the component for on a standalone basis.

24. Dividend revenue is recognized when the shareholder's right to receive payment is established (date of declaration).

25. The general concepts and principles used for revenue recognition are similar between U.S. GAAP and IFRS. When they differ is in the detail. U.S. GAAP provides specific guidance related to revenue recognition in many different industries. That is not the case for IFRS.

26. If revenues and costs are difficult to estimate, then companies do not recognize revenue until the project is completed, assuming use of the completed contract method of accounting.

27. In the first year under U.S. GAAP, the company should not report any revenues. Assuming that the costs incurred in the first year are $40 million under IFRS, the company should report revenue of $40 million. In this case a zero-profit is recognized.

*__28.__ It is improper to recognize the entire franchise fee as revenue at the date of sale when many of the services of the franchisor are yet to be performed and/or uncertainty exists regarding collection of the entire fee.

*__29.__ In a franchise sale, the franchisor may record initial franchise fees as revenue only when the franchisor makes "substantial performance" of the services it is obligated to perform. Substantial performance occurs when the franchisor has no remaining obligation to refund any cash received or excuse any nonpayment of a note and has performed all the initial services required under the contract.

*__30.__ Continuing franchise fees should be reported as revenue when they are earned and receivable from the franchisee, unless a portion of them have been designated for a particular purpose. In that case, the designated amount should be recorded as revenue, with the costs charged to an expense account. Continuing product sales would be accounted for in the same manner as would any other product sales.

Note to instructor:
If it is likely that the franchisor will exercise an option to purchase the franchised outlet, the initial franchise fee should not be recorded as a revenue but as a deferred credit. When the option is exercised, the deferred amount would reduce the franchisor's investment in the outlet.

When the franchise agreement allows the franchisee to purchase equipment and supplies at bargain prices from the franchisor, a portion of the initial franchise fee should be deferred. The deferred portion would be accounted for as an adjustment of the selling price when the franchisee subsequently purchases the equipment and supplies.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 18-1

Accounts Receivable	103,400	
Sales ($110,000 X 94%)		103,400

BRIEF EXERCISE 18-2

Notes Receivable	10,000	
Sales		10,000

Sales revenue	£10,000
Interest revenue	1,000
Total revenue	£11,000

BRIEF EXERCISE 18-3

Cash	30,000	
Accounts Receivable	70,000	
Sales		100,000

BRIEF EXERCISE 18-4

Cash (€70,000 X 6%)	4,200	
Commission Revenue		4,200

BRIEF EXERCISE 18-5

(a) Sales Returns and Allowances	78,000	
Accounts Receivable		78,000
(b) Sales Returns and Allowances	27,000	
Allowance for Sales Returns and Allowances [(15% X $700,000) – $78,000]		27,000

BRIEF EXERCISE 18-6

Cash	18,850*	
Advertising Expense	500	
Commission Expense	2,150	
Revenue from Consignment Sales		21,500

*[$21,500 – $500 – ($21,500 X 10%)]

Cost of Goods Sold	13,200	
Inventory on Consignment [60% X ($20,000 + $2,000)]		13,200

BRIEF EXERCISE 18-7

January	£ 0
February income (£4,000 – £3,000) X 50%	£500
March income (£4,000 – £3,000 X 30%)	£300
April income (£4,000 – £3,000 X 20%)	£200

BRIEF EXERCISE 18-8

Construction in Process	1,700,000	
Materials, Cash, Payables, etc.		1,700,000
Accounts Receivable	1,200,000	
Billings on Construction in Process		1,200,000
Cash	960,000	
Accounts Receivable		960,000
Construction in Process [($1,700,000 ÷ 5,000,000) X $2,000,000]	680,000	
Construction Expenses	1,700,000	
Revenue from Long-Term Contracts ($7,000,000 X 34%)		2,380,000

BRIEF EXERCISE 18-9

Construction in Process	1,700,000	
Materials, Cash, Payables, etc.		1,700,000
Accounts Receivable	1,200,000	
Billings on Construction in Process		1,200,000
Cash	960,000	
Accounts Receivable		960,000
Construction Expenses	1,700,000	
Revenue from Long-Term Contracts		1,700,000

BRIEF EXERCISE 18-10

Current Assets		
Accounts Receivable		$ 240,000
Inventories		
Construction in process	$2,450,000	
Less: Billings	1,400,000	
Costs and recognized profit in excess of billings		1,050,000

BRIEF EXERCISE 18-11

Current Assets		
Accounts Receivable		$240,000
Inventories		
Construction in process	$1,715,000	
Less: Billings	1,000,000	
Costs and recognized profit in excess of billings		715,000

BRIEF EXERCISE 18-12

(a) Construction Expenses	278,000	
Construction in Process (Loss)		20,000*
Revenue from Long-Term Contracts		258,000

BRIEF EXERCISE 18-12 (Continued)

(b)	Construction Expenses	278,000	
	Revenue from Long-Term Contracts		278,000
	Loss from Long-Term Contracts	20,000*	
	Construction in Process (Loss)		20,000

*[$420,000 – ($278,000 + $162,000)]

*BRIEF EXERCISE 18-13

Cash	25,000	
Notes Receivable	41,402	
Unearned Franchise Fees ($25,000 + $41,402)		66,402

SOLUTIONS TO EXERCISES

EXERCISE 18-1 (5–10 minutes)

(a)	Notes Receivable	600,000	
	Sales (€610,000 – €10,000)		600,000
(b)	Sales revenue	€600,000	
	Interest revenue	100,000	
	Total revenue		€700,000

EXERCISE 18-2 (5–10 minutes)

(a)	Accounts Receivable	410,000	
	Sales		370,000
	Unearned Installation Revenue		40,000
(b)	First Quarter		
	Sales revenue	£370,000	
	Installation revenue (£40,000 X 3/6)	20,000	
	Total revenue		£390,000

EXERCISE 18-3 (5–10 minutes)

(a) Grupo would recognize ¥1,000,000 of revenue at delivery.

(b) Grupo would recognize ¥800,000 at the point of sale.

(c) Grupo would recognize revenue by discounting the payments using an imputed interest rate.

EXERCISE 18-4 (10–15 minutes)

(a) This transaction is a bill and hold situation. Delivery of the counters is delayed at the buyer's request, but the buyer takes title and accepts billing.

EXERCISE 18-4 (Continued)

(b) Revenue is reported at the time title passes if (1) it is probable that delivery will be made, (2) the item is on hand and ready for delivery at the time the sale is recognized, (3) the buyer acknowledges the deferred delivery arrangement, and (4) the usual payment terms apply.

(c)	Cash	300,000	
	Accounts Receivable	1,700,000	
	Sales		2,000,000

EXERCISE 18-5 (5–10 minutes)

(a)	Accounts Receivable	1,500,000	
	Sales		1,500,000
	Sales Returns and Allowances ($1,500,000 X 20%)	300,000	
	Allowance for Sales Returns and Allowances		300,000
(b)	Allowance for Sales Returns and Allowances	100,000	
	Accounts Receivable		100,000

(c) If Organic is unable to estimate returns, it defers recognition of revenue until the return period expires on April 30, 2010.

EXERCISE 18-6 (15–20 minutes)

(a) Uddin could recognize revenue at the point of sale based upon the time of shipment because the books are sold f.o.b. shipping point. Because of the return policy one might argue in favor of the cash collection basis. Because the returns can be estimated, one could argue for shipping point less estimated returns.

(b) Based on the available information and lack of any information indicating that any of the criteria in IFRS were not met, the correct treatment is to report revenue at the time of shipment as the gross amount less the 12% normal return factor. This is supported by the legal test of transfer of title and the criteria in IFRS. One could be very conservative and use the 30% maximum return allowance.

EXERCISE 18-6 (Continued)

(c)	Accounts Receivable	15,000,000	
	Sales Revenue—Texts		15,000,000
	Sales Returns and Allowances* ($15,000,000 X 12%)	1,800,000	
	Allowance for Sales Returns		1,800,000
(d)	Sales Returns and Allowances*	200,000	
	Allowance for Sales Returns and Allowances	1,800,000	
	Accounts Receivable		2,000,000
	Cash	13,000,000	
	Accounts Receivable		13,000,000

*A debit to Sales Revenue—Texts or Sales Returns could be made here.

EXERCISE 18-7 (15–20 minutes)

(a)	1.	6/3	Accounts Receivable	8,000	
			Sales		8,000
		6/5	Sales Returns and Allowances	600	
			Accounts Receivable		600
		6/7	Transportation-Out	24	
			Cash		24
		6/12	Cash	7,252	
			Sales Discounts (2% X $7,400)	148	
			Accounts Receivable		7,400
	2.	6/3	Accounts Receivable	7,840	
			Sales [$8,000 – (2% X $8,000)]		7,840
		6/5	Sales Returns and Allowances	588	
			Accounts Receivable [$600 – (2% x $600)]		588
		6/7	Transportation-Out	24	
			Cash		24

6/12 Cash	7,252	
Accounts Receivable		7,252

EXERCISE 18-7 (Continued)

(b)	8/5	Cash	7,400	
		Accounts Receivable		7,252
		Sales Discounts Forfeited (2% X $7,400)		148

EXERCISE 18-8 (10–15 minutes)

(a)	Cash (2010 slips) (300 X $800)	240,000	
	Dock Rent Revenue		240,000
	Cash (2011 slips) [200 X $800 X (1.00 – .05)]	152,000	
	Unearned Service Revenue (current)		152,000
	Cash (2012 slips) [60 X $800 X (1.00 – .20)]	38,400	
	Unearned Service Revenue (non-current)		38,400

(b) The marina operator should recognize that advance rentals generated $190,400 ($152,000 + $38,400) of cash in exchange for the marina's promise to deliver future services. In effect, this has reduced future cash flow by accelerating payments from boat owners. Also, the price of rental services has effectively been reduced. The current cash bonanza does not reflect current earned income. The future costs of operation must be covered, in part, from this accelerated cash inflow. On a present value basis, the granting of these discounts seems ill-advised unless interest rates were to skyrocket so that the interest earned would offset the discounts provided.

EXERCISE 18-9 (15–20 minutes)

(a) Inventoriable costs:

80 units shipped at cost of $500 each	$40,000
Freight	840
Total inventoriable cost	$40,840
40 units on hand (40/80 X $40,840)	$20,420

EXERCISE 18-9 (Continued)

(b) **Computation of consignment profit:**

Consignment sales (40 X $750)................................	$30,000
Cost of units sold (40/80 X $40,840)	(20,420)
Commission charged by consignee	
(6% X $30,000)	(1,800)
Advertising cost	(200)
Installation costs	(320)
Profit on consignment sales..............................	$ 7,260

(c) **Remittance of consignee:**

Consignment sales		$30,000
Less: Commissions	$1,800	
Advertising	200	
Installation..	320	2,320
Remittance from consignee		$27,680

EXERCISE 18-10 (20–25 minutes)

(a) **Gross profit recognized in:**

	2010		2011		2012	
Contract price		$1,600,000		$1,600,000		$1,600,000
Costs:						
Costs to date	$400,000		$825,000		$1,070,000	
Estimated costs to complete	600,000	1,000,000	275,000	1,100,000	0	1,070,000
Total estimated profit		600,000		500,000		530,000
Percentage completed to date		40%*		75%**		100%
Total gross profit recognized		240,000		375,000		530,000
Less: Gross profit recognized in previous years		0		240,000		375,000
Gross profit recognized in current year		$ 240,000		$ 135,000		$ 155,000

*$400,000 ÷ $1,000,000

****$825,000 ÷ $1,100,000**

EXERCISE 18-10 (Continued)

(b)

Construction in Process ($825,000 – $400,000) ...	425,000	
Materials, Cash, Payables, etc.		425,000
Accounts Receivable ($900,000 – $300,000).........	600,000	
Billings on Construction in Process.............		600,000
Cash ($810,000 – $270,000)	540,000	
Accounts Receivable		540,000
Construction Expenses	425,000	
Construction in Process.......................................	135,000	
Revenue from Long-Term Contracts		560,000*

*$1,600,000 X (75% – 40%)

(c) Gross profit recognized in:

	2010	2011	2012
Gross profit	$–0– ($400,000 – $400,000)	$–0– ($825,000 – $825,000)	$530,000 ($1,600,000 – $1,070,000)

EXERCISE 18-11 (10–15 minutes)

(a)

Contract billings to date	$61,500
Less: Accounts receivable 12/31/10	18,000
Portion of contract billings collected	$43,500

(b) $\dfrac{\$19,500}{\$65,000} = 30\%$

(The ratio of gross profit to revenue recognized in 2010.)

$1,000,000 X .30 = $300,000

(The initial estimated total gross profit before tax on the contract.)

EXERCISE 18-12 (10–12 minutes)

DOUGHERTY INC.
Computation of Gross Profit to be Recognized on Uncompleted Contract
Year Ended December 31, 2010

Total contract price	
Estimated contract cost at completion	
($800,000 + $1,200,000)	$2,000,000
Fixed fee	450,000
Total	2,450,000
Total estimated cost	2,000,000
Gross profit	450,000
Percentage of completion ($800,000 ÷ $2,000,000)	40%
Gross profit to be recognized ($450,000 X 40%)	$ 180,000

EXERCISE 18-13 (25–30 minutes)

(a) 1.

Gross profit recognized in 2010:		
Contract price		$1,200,000
Costs:		
Costs to date	$280,000	
Estimated additional costs	520,000	800,000
Total estimated profit		400,000
Percentage completion to date		
($280,000/$800,000)		35%
Gross profit recognized in 2010		$ 140,000
Gross profit recognized in 2011:		
Contract price		$1,200,000
Costs:		
Costs to date	$600,000	
Estimated additional costs	200,000	800,000
Total estimated profit		400,000
Percentage completion to date		
($600,000/$800,000)		75%
Total gross profit recognized		300,000
Less: Gross profit recognized in 2010		140,000
Gross profit recognized in 2011		$ 160,000

EXERCISE 18-13 (Continued)

2.	Construction in Process ($600,000 – $280,000)....	320,000	
	Materials, Cash, Payables, etc.......................		320,000
	Accounts Receivable ($500,000 – $150,000)........	350,000	
	Billings on Construction in Process		350,000
	Cash ($320,000 – $120,000)	200,000	
	Accounts Receivable....................................		200,000
	Construction in Process	160,000	
	Construction Expenses	320,000	
	Revenues from Long-Term Contracts		480,000*

*$1,200,000 X [($600,000 – $280,000) ÷ $800,000]

(b) Income Statement (2011)—

Gross profit on long-term construction contract	$160,000
Statement of Financial Position (12/31/12)—	
Current assets:	
Receivables—construction in process.................	$180,000*
Inventories—construction in process totaling $900,000** less billings of $500,000	$400,000

*$180,000 = $500,000 – $320,000

**Total cost to date	$600,000
2010 Gross profit	140,000
2011 Gross profit	160,000
	$900,000

EXERCISE 18-14 (15–20 minutes)

(a) $2010—\dfrac{\$640,000}{\$1,600,000} \text{ X } \$2,200,000 = \underline{\underline{\$880,000}}$

2011—$2,200,000 (contract price) minus $880,000 (revenue recognized in 2010) = $1,320,000 (revenue recognized in 2011).

(b) $2,200,000 – $1,560,000 = $640,000 of the contract price is recognized as income in 2011.

(c) Using the percentage-of-completion method, the following entries would be made:

Construction in Process	640,000	
Materials, Cash, Payables, etc.		640,000
Accounts Receivable	420,000	
Billings on Construction in Process		420,000
Cash	350,000	
Accounts Receivable		350,000
Construction in Process	240,000*	
Construction Expenses	640,000	
Revenue from Long-Term Contracts [from (a)]		880,000

*[$2,200,000 – ($640,000 + $960,000)] X ($640,000 ÷ $1,600,000)

(Using the cost-recovery method, all the same entries are made except for the last entry. No income is recognized until the total contract cost is collected.)

EXERCISE 18-15 (15–25 minutes)

(a) <u>Computation of Gross Profit to Be Recognized under Cost-Recovery Method</u>.

No computation necessary. No gross profit is recognized prior to collection of the total contract cost.

<u>Computation of Billings on Uncompleted Contract in Excess of Related Costs under Cost-Recovery Method</u>.

Construction costs incurred during the year	$ 1,185,800
Partial billings on contract (25% X $6,000,000)	(1,500,000)
	$ (314,200)

EXERCISE 18-15 (Continued)

(b) **Computation of Gross Profit to Be Recognized under Percentage-of-Completion Method.**

Total contract price	$6,000,000
Total estimated cost ($1,185,800 + $4,204,200)	5,390,000
Estimated total gross profit from contract	610,000
Percentage-of-completion ($1,185,800/$5,390,000)	22%
Gross profit to be recognized during the year ($610,000 X 22%)	$ 134,200

Computation of Billings on Uncompleted Contract in Excess of Related Costs and Recognized Profit under Percentage-of-Completion Method.

Construction costs incurred during the year	$ 1,185,800
Gross profit to be recognized during the year (above)	134,200
Total charged to construction-in-process	1,320,000
Partial billings on contract (25% X $6,000,000)	(1,500,000)
	$ (180,000)

EXERCISE 18-16 (15–25 minutes)

BERSTLER CONSTRUCTION COMPANY
Partial Income Statement
Year Ended December 31, 2010

Revenue from long-term contracts (Project 3)	€520,000
Costs of construction (Project 3)	330,000
Gross profit	190,000
Loss on long-term contract (Project 1)*	(20,000)

*Computation of loss (Project 1)

Contract costs through 12/31/10	€450,000
Estimated costs to complete	130,000
Total estimated costs	580,000
Total contract price	560,000
Loss recognized in 2010	€ (20,000)

BERSTLER CONSTRUCTION COMPANY
Partial Statement of Financial Position
December 31, 2010

Current assets:		
Accounts receivable (€1,080,000 – €990,000)....		€90,000
Inventories		
Construction in process		
(€450,000 – €20,000)	€430,000*	
Less: Billings..	360,000	
Unbilled contract costs (Project 1)............		70,000
Current liabilities:		
Billings (€220,000) in excess of contract costs (€126,000) (Project 2)............................		94,000

*The loss of €20,000 was subtracted from the construction in process account.

EXERCISE 18-17 (10–15 minutes)

(a) This situation is a bartering transaction. Revenues arise when a company exchanges (swaps) goods or services for goods or services of another company without the use of money.

(b) If the goods (services) that are exchanged are dissimilar in nature, the exchange is recorded as revenue. If similar, revenue is not reported.

(c)

Advertising Expense*..	1,000,000	
Service Revenue		1,000,000

*Assuming all ads have been presented on TV broadcasts.

EXERCISE 18-18 (5–10 minutes)

Initiation fee (non-refundable) ($1,800 ÷ 18) X 12	$ 1,200
Annual dues ($250 X 12)	3,000
Total revenue/member	$ 4,200
Number of members..	X 400
Total revenue reported in 2010..	$1,680,000

EXERCISE 18-19 (10–15 minutes)

(a) The conditions for a multiple-deliverable arrangement exist for Appliance Center since the delivered item has value to the customer on a stand-alone basis, the agreement includes a general right of return, and performance of the undelivered item (installation) is considered probable.

(b)

Oven	$ 800/$1,025	X $1,000	=	$780
Installation	$ 50/$1,025	X $1,000	=	$ 49
Maintenance	$ 175/$1,025	X $1,000	=	$171
	$1,025			

EXERCISE 18-20 (5–10 minutes)

(a)

Cash	50,000	
Sales		48,800
Unearned Warranty Revenue		1,200

(b) Grando should recognize €100 of warranty revenue on January 31, 2011, and €1,200 for the year 2011.

***EXERCISE 18-21 (14–18 minutes)**

(a)

Cash	28,000	
Notes Receivable ($14,000 X 2.48685)	34,816	
Revenue from Franchise Fees		62,816

(b)

Cash	28,000	
Unearned Franchise Fees		28,000

(c)

Cash	28,000	
Notes Receivable	34,816	
Revenue from Franchise Fees		28,000
Unearned Franchise Fees ($14,000 X 2.48685)		34,816

(Calculations rounded)

*EXERCISE 18-22 (12–16 minutes)

(a)

Down payment made on 1/1/10	$10,000
Present value of an ordinary annuity ($8,000 X 3.69590)	29,567
Total revenue recorded by Campbell and total acquisition cost recorded by Lesley Benjamin	$39,567

(b)

Cash	10,000	
Notes Receivable	29,567	
Unearned Franchise Fees		39,567

(c)
1. $10,000 cash received from down payment. ($29,567 is recorded as unearned franchise fees.)
2. $10,000 cash received from down payment.
3. None. ($10,000 is recorded as unearned franchise fees.)

TIME AND PURPOSE OF PROBLEMS

Problem 18-1 (Time 30–45 minutes)
Purpose—the student defines and describes the point of sale, cost recovery, and percentage-of-completion methods of revenue recognition. Then the student computes revenue to be recognized in situations using a percentage-of-completion method, when the right of return exists, and using the point of sale method.

Problem 18-2 (Time 20–25 minutes)
Purpose—to provide the student with an understanding of both the percentage-of-completion and cost-recovery methods of accounting for long-term construction contracts. The student is required to compute the estimated gross profit that would be recognized during each year of the construction period under each of the two methods.

Problem 18-3 (Time 25–35 minutes)
Purpose—to provide the student with an understanding of the percentage-of-completion method of accounting for long-term construction contracts. The student is required to compute the estimated gross profit during the three-year period using the percentage-of-completion method, and to prepare the necessary journal entries to record the events which occurred during the last year.

Problem 18-4 (Time 20–30 minutes)
Purpose—to provide the student with an understanding of both the accounting procedures involved under the percentage-of-completion method and the respective statement of financial position presentation for long-term construction contracts. The student is required to compute the estimated gross profit realized during the construction periods, plus prepare a partial statement of financial position showing the balances in the receivable and inventory accounts.

Problem 18-5 (Time 25–30 minutes)
Purpose—to provide the student with a multiple-year long-term project problem (with an interim loss) applying the percentage-of-completion method. The student is also required to prepare the income statement and statement of financial position presentations for this uncompleted project.

Problem 18-6 (Time 20–25 minutes)
Purpose—to provide the student with a long-term construction contract problem that requires the recognition of a loss during an interim year on a contract that is profitable overall. This problem requires application of both the percentage-of-completion method and the cost-recovery method to an interim loss situation.

Problem 18-7 (Time 20–25 minutes)
Purpose—to provide the student with a long-term construction contract problem that requires the recognition of a loss during an interim year on an unprofitable contract overall. This problem requires application of both the percentage-of-completion method and the cost-recovery method to this unprofitable contract.

Problem 18-8 (Time 20–30 minutes)
Purpose—to provide the student with a problem requiring the computation of “cost of uncompleted contract in excess of related billings” or “billings on uncompleted contract in excess of related costs” and “profit or loss.” Each of these computations is required for each year of the three-year contract applying the cost-recovery method.

Problem 18-9 (Time 40–50 minutes)
Purpose—to provide the student with an understanding of how to write a letter comparing the percentage-of-completion method to the cost-recovery method.

Problem 18-10 (Time 50–60 minutes)
Purpose—to provide the student with an understanding of how to compute gross profit on five different long-term contracts (using both percentage-of-completion and cost-recovery methods). In addition, partial statement of financial position and income statement data must be prepared.

Problem 18-11 (Time 20–25 minutes)
Purpose—to provide the student with an understanding of how to allocate revenue between an equipment sale and a warranty. The student is required to prepare a journal entry and to determine the amount of revenue recorded in two years.

Problem 18-12 (Time 20–25 minutes)
Purpose—to provide the student with an understanding of how to account for three different revenue recognition situations. The student is required to prepare a journal entry for each situation.

Problem 18-13 (Time 20–30 minutes)
Purpose—to provide the student with an understanding of how to account for three different revenue recognition situations. The student is required to compute the amount of revenue recognized in each situation.

SOLUTIONS TO PROBLEMS

PROBLEM 18-1

(a) 1. The point of sale method recognizes revenue when it is probable that the economic benefits will flow to the company and the benefits can be measured reliability. This can be the date goods are delivered, when title passes, when services are rendered and billable, or as time passes (e.g., rent or royalty income). This method most closely follows the accrual accounting method and is in accordance with IFRS.

2. The cost-recovery method recognizes revenue only to the extent of costs incurred that are expected to be recoverable. This method is used when there are inherent hazards in the contract beyond the normal, recurring business risks. The advantage of this method is that income is recognized on final results, not estimates. The disadvantage is that when the contract extends over more than one accounting period, current performance on the project is not recognized and earnings are distorted. It is acceptable according to IFRS only when the percentage-of-completion method is inappropriate.

3. The percentage-of-completion method of revenue recognition is used on long-term projects, usually construction. To apply it, the following conditions must exist:

(i) Total contract revenue can be measured reliably;

(ii) It is probable that the economic benefits associated with the contract will flow to the company;

(iii) Both the contract costs to complete the contract and the stage of contract completion at the end of the reporting period can be measured reliabily;

(iv) The contract costs attributable to the contract can be clearly identified and measured reliably so the actual contract costs incurred can be compared with prior estimates.

Gross profit is recognized in proportion to the work completed. The progress toward contract completion is the revenue-generating event. Normally, progress is measured as the percentage of actual costs to date to estimated total costs. This percentage is applied to estimated gross profit to indicate the total profit which should be recognized to that date. That total less the income that was recognized in previous periods is the amount recognized in the current period. In the final period, the actual total profit is known and the difference between this amount and profit previously recognized is shown as profit of the period. This method is in accordance with IFRS for long-term projects when estimates are dependable.

(b) Depp Construction

A change of cost estimates calls for a revision of revenue and profit to be recognized in the period in which the change was made (in this case, the first period).

Contract price		$30,000,000
Costs: Actual costs to 11/30/10	$ 7,200,000	
Estimated costs to complete	16,800,000	
Total cost		24,000,000
Estimated profit		$ 6,000,000
Percentage of contract completed ($7,200,000 ÷ $24,000,000)		30%
Revenue to be recognized in 2010 ($30,000,000 X 30%)		$ 9,000,000

Dement Publishing Division

Sales—fiscal 2010	$ 7,000,000
Less: Sales returns and allowances (20%)	1,400,000
Net sales—revenue to be recognized in fiscal 2010	$ 5,600,000

Although distributors can return up to 30 percent of sales, prior experience indicates that 20 percent of sales is the expected average amount of returns. The collection of 2009 sales has no impact on fiscal 2010 revenue. The 21 percent of returns on the initial $5,500,000 of 2010 sales confirms that 20 percent of sales will provide a reasonable estimate.

PROBLEM 18-1 (Continued)

Ankiel Securities Division
Revenue for fiscal 2010 = $5,200,000.

The revenue is the amount of goods actually billed and shipped when revenue is recognized at point of sale (terms of F.O.B. factory). Orders for goods do not constitute sales. Down payments are not sales. The actual freight costs are expenses made by the seller that the buyer will reimburse at the time s/he pays for the goods.

Commissions and warranty returns are also selling expenses. Both of these expenses will be accrued and will appear in the operating expenses section of the income statement.

PROBLEM 18-2

(a)

	2010	2011	2012
Contract price	£900,000	£900,000	£900,000
Less estimated cost:			
Costs to date	270,000	450,000	610,000
Estimated cost to complete	330,000	150,000	—
Estimated total cost	600,000	600,000	610,000
Estimated total gross profit	£300,000	£300,000	£290,000

Gross profit recognized in—

	2010	2011	2012
2010: $\frac{£270,000}{£600,000}$ X £300,000 =	£135,000		
2011: $\frac{£450,000}{£600,000}$ X £300,000 =		£225,000	
Less 2010 recognized gross profit		135,000	
Gross profit in 2011		£ 90,000	
2012: Less 2010–2011 recognized gross profit			225,000
Gross profit in 2012			£ 65,000

(b) In 2010 and 2011, no gross profit would be recognized.

Total billings	£900,000
Total cost	610,000
Gross profit recognized in 2012.......	£290,000

PROBLEM 18-3

(a) Gross profit recognized in:

	2010		2011		2012	
Contract price		$3,000,000		$3,000,000		$3,000,000
Costs:						
Costs to date	$ 600,000		$1,560,000		$2,100,000	
Estimated costs to complete	1,400,000	2,000,000	520,000	2,080,000	0	2,100,000
Total estimated profit		1,000,000		920,000		900,000
Percentage completed to date		30%*		75%**		100%
Total gross profit recognized		300,000		690,000		900,000
Less: Gross profit recognized in previous years		0		300,000		690,000
Gross profit recognized in current year		$ 300,000		$ 390,000		$ 210,000

*$600,000 ÷ $2,000,000
**$1,560,000 ÷ $2,080,000

(b)

Construction in Process ($2,100,000 – $1,560,000)....	540,000	
Materials, Cash, Payables, etc.		540,000
Accounts Receivable ($3,000,000 – $2,000,000)	1,000,000	
Billings on Construction in Process		1,000,000
Cash ($2,850,000 – $1,950,000)...............................	900,000	
Accounts Receivable		900,000
Construction Expenses..	540,000	
Construction in Process	210,000	
Revenue from Long-Term Contracts...............		750,000*

*$3,000,000 X (100% – 75%)

Billings on Construction in Process	3,000,000	
Construction in Process..................................		3,000,000

PROBLEM 18-3 (Continued)

(c)

CHANCE COMPANY
Statement of Financial Position (Partial)
December 31, 2011

Current assets:		
Inventories		
Construction in process		
($1,560,000 + $690,000)	$2,250,000	
Less: Billings	2,000,000	
Costs and recognized profit		
in excess of billings....................		$250,000
Accounts receivable		
($2,000,000 – $1,950,000)		50,000

PROBLEM 18-4

(a)

	2010	2011	2012
Contract price	€6,600,000	€6,600,000	€6,510,000
Less estimated cost:			
Costs to date	1,620,000	3,850,000	5,500,000
Estimated cost to complete	3,780,000	1,650,000	—
Estimated total cost	5,400,000	5,500,000	5,500,000
Estimated total gross profit	€1,200,000	€1,100,000	€1,010,000

Gross profit recognized in—

	2010	2011	2012
2010: $\frac{€1,620,000}{€5,400,000}$ X €1,200,000 =	€360,000		
2011: $\frac{€3,850,000}{€5,500,000}$ X €1,100,000 =		€770,000	
Less 2010 recognized gross profit		360,000	
Gross profit in 2011		€410,000	
2012: Less 2010–2011 recognized gross profit			770,000
Gross profit in 2012			€240,000

(b)

HEWITT CONSTRUCTION COMPANY
Statement of Financial Position
December 31, 2011

Current assets:		
Inventories		
Construction in process	€4,620,000*	
Less: Billings	3,300,000	
Costs and recognized profit in excess of billings		€1,320,000
Accounts receivable (€3,300,000 – €2,800,000)..................		500,000

*€6,600,000 X (€3,850,000 ÷ €5,500,000)

PROBLEM 18-5

(a) The cost-recovery method of revenue recognition recognizes income only after all costs are incurred. Cost-recovery revenue recognition is used for long-term projects when estimates of revenue and costs are not reliable.

The percentage-of-completion method of revenue recognition recognizes income and associated costs in each accounting period based upon progress. This method is preferred for long-term projects when estimates of revenues and costs are reasonably dependable. Under the percentage-of-completion method, the current status of uncompleted contracts is reflected on the financial statements.

(b) Using the data provided for the Bluestem Tractor Plant, and on the assumption that the percentage-of-completion method of revenue recognition is used, the calculations of RCB's revenue and gross profit for 2010, 2011, and 2012 under three sets of circumstances are presented below.

1. Assuming that all costs are incurred, all billings to customers are made, and all collections from customers are received within 30 days of billing, the RCB's revenue, cost of sales, and gross profit for 2010, 2011, and 2012, are calculated as follows:

Percentage-of-Completion
($000 omitted)

Year	Contract Price	Costs to Date	Estimated Total Costs	Estimated Gross Profit (Col. 2–Col. 4)	Percent Complete (Col. 3/Col. 4)
(1)	(2)	(3)	(4)	(5)	(6)
2010	$8,000	$1,600	$6,400*	$1,600	25%
2011	8,000	4,480	6,400	1,600	70%
2012	8,000	6,400	6,400	1,600	100%

*($1,600 + $2,880 + $1,920)

Revenue recognition

Year	Contract Price	Percent Complete	Revenue Recognizable	Less Prior Year(s)	Current Year
2010	$8,000	25%	$2,000	—	$2,000
2011	8,000	70%	5,600	$2,000	3,600
2012	8,000	100%	8,000	5,600	2,400

Profit recognition

Year	Estimated Profit	Percent Complete	Profit Recognizable	Less Prior Year(s)	Current Year
2010	$1,600	25%	$ 400	—	$400
2011	1,600	70%	1,120	$ 400	720
2012	1,600	100%	1,600	1,120	480

2. Assuming the same facts as in Instruction (b)1., but that cost overruns of $800,000 were experienced in 2010, RCB's revenue, costs of sales, and gross profit for 2010, 2011, and 2012 were calculated as follows:

Percentage-of-Completion
($000 omitted)

Year	Contract Price	Costs to Date	Estimated Total Costs	Estimated Gross Profit (Col. 2–Col. 4)	Percent Complete (Col. 3/Col. 4)
(1)	(2)	(3)	(4)	(5)	(6)
2010	$8,000	$2,400	$7,200*	$800	33.33%
2011	8,000	5,280	7,200	800	73.33%
2012	8,000	7,200	7,200	800	100%

*($2,400 + $2,880 + $1,920)

Revenue recognition

Year	Contract Price	Percent Complete	Revenue Recognizable	Less Prior Year(s)	Current Year
2010	$8,000	33.33%	$2,666.4	—	$2,666.4
2011	8,000	73.33%	5,866.4	$2,666.4	3,200.0

2012	**8,000**	**100%**	**8,000**	**5,866.4**	**2,133.6**

Profit recognition

Year	Estimated Profit	Percent Complete	Profit Recognizable	Less Prior Year(s)	Current Year
2010	$800	33.33%	$266.6	—	$266.6
2011	800	73.33%	586.7	$266.6	320.1
2012	800	100%	800	586.7	213.3

3. Assuming the same facts as in Instructions (b)1. and (b)2., but that additional cost overruns of $850,000 are experienced in 2011, RCB's revenue, cost of sales, and gross profit for 2010, 2011, and 2012 are calculated as follows:

Percentage-of-Completion
($000 omitted)

Year	Contract Price	Costs to Date	Estimated Total Costs	Estimated Gross Profit (Col. 2–Col. 4)	Percent Complete (Col. 3/Col. 4)
(1)	(2)	(3)	(4)	(5)	(6)
2010	$8,000	$2,400	$7,200	$800	33.33%
2011	8,000	6,130*	8,050	(50)	76.15%
2012	8,000	8,050	8,050	(50)	100%

*($5,280 + $850)

Revenue recognition

Year	Contract Price	Percent Complete	Revenue Recognizable	Less Prior Year(s)	Current Year
2010	$8,000	33.33%	$2,666.4	—	$2,666.4
2011	8,000	76.15%	6,092.0	$2,666.4	3,425.6
2012	8,000	100%	8,000.0	6,092.0	1,908.0

Profit recognition

Year	Estimated Profit	Percent Complete	Profit Recognizable	Less Prior Year(s)	Current Year
2010	$800	33.33%	$266.6	—	$266.6
2011	(50)	100%[a]	(50)	$266.6	(316.6)
2012	(50)	100%	(50)	(50)	—

[a]**When there is a projected loss at any time, it must be recognized in full in the period in which a loss on the contract appears probable.**

PROBLEM 18-6

(a) **Computation of Recognizable Profit/Loss**
Percentage-of-Completion Method

2010

Costs to date (12/31/10)	$2,880,000
Estimated costs to complete	3,520,000
Estimated total costs	$6,400,000
Percent complete ($2,880,000 ÷ $6,400,000)	45%
Revenue recognized ($8,400,000 X 45%)	$3,780,000
Costs incurred	2,880,000
Profit recognized in 2010	$ 900,000

2011

Costs to date (12/31/11) ($2,880,000 + $2,230,000)	$5,110,000
Estimated costs to complete	2,190,000
Estimated total costs	$7,300,000
Percent complete ($5,110,000 ÷ $7,300,000)	70%
Revenue recognized in 2011 ($8,400,000 X 70%) – $3,780,000	$2,100,000
Costs incurred in 2011	2,230,000
Loss recognized in 2011	$ (130,000)

2012

Total revenue recognized	$8,400,000
Total costs incurred	7,300,000
Total profit on contract	1,100,000
Deduct profit previously recognized ($900,000 – $130,000)	770,000
Profit recognized in 2012	$ 330,000*

PROBLEM 18-6 (Continued)

***Alternative**	
Revenue recognized in 2012	
($8,400,000 X 30%)	**$2,520,000**
Costs incurred in 2012..	**2,190,000**
Profit recognized in 2012.......................................	**$ 330,000**

(b) Computation of Recognizable Profit/Loss
Cost-Recovery Method

2010—NONE
2011—NONE

2012

Total revenue recognized.......................................	**$8,400,000**
Total costs incurred...	**7,300,000**
Profit recognized in 2012.......................................	**$1,100,000**

PROBLEM 18-7

(a) **Computation of Recognizable Profit/Loss**
Percentage-of-Completion Method

2010

Costs to date (12/31/10)	€ 300,000
Estimated costs to complete	1,200,000
Estimated total costs	€1,500,000
Percent complete (€300,000 ÷ €1,500,000)	20%
Revenue recognized (€1,900,000 X 20%)	€ 380,000
Costs incurred	300,000
Profit recognized in 2010	€ 80,000

2011

Costs to date (12/31/11)	€1,200,000
Estimated costs to complete	800,000
Estimated total costs	2,000,000
Contract price	1,900,000
Total loss	€ 100,000
Total loss	€ 100,000
Plus gross profit recognized in 2010	80,000
Loss recognized in 2011	€ 180,000

OR

Percent complete (€1,200,000 ÷ €2,000,000)	60%
Revenue recognized in 2011 [(€1,900,000 X 60%) – €380,000]	€ 760,000
Costs incurred in 2011 (€1,200,000 – €300,000)	900,000
Loss to date	140,000
Loss attributable to 2012*	40,000
Loss recognized in 2011	€ 180,000

PROBLEM 18-7 (Continued)

*2012 revenue	
(€1,900,000 – €380,000 – €760,000)....	€760,000
2012 estimated costs	800,000
2012 loss	€ (40,000)

2012

Costs to date (12/31/12)		€2,100,000
Estimated costs to complete................................		0
		2,100,000
Contract price		1,900,000
Total loss		€ (200,000)
Total loss		€ (200,000)
Less: Loss recognized in 2011	€180,000	
Gross profit recognized in 2010..........................	(80,000)	(100,000)
Loss recognized in 2012.....................................		€ (100,000)

(b) Computation of Recognizable Profit/Loss
Cost-Recovery Method

2010—NONE

2011

Costs to date (12/31/11)...	€1,200,000
Estimated costs to complete	800,000
Estimated total costs.....................................	2,000,000
Deduct contract price	1,900,000
Loss recognized in 2011	€ (100,000)

2012

Total costs incurred...	€2,100,000
Total revenue recognized......................................	1,900,000
Total loss on contract	(200,000)
Deduct loss recognized in 2011	(100,000)
Loss recognized in 2012	€ (100,000)

PROBLEM 18-8

(a)

MONAT CONSTRUCTION COMPANY, INC.
Computation of Billings on Uncompleted Contract
In Excess of Related Costs
December 31, 2010

Partial billings on contract during 2010	£1,400,000
Deduct construction costs incurred during 2010	1,140,000
Balance, December 31, 2010	£ 260,000

MONAT CONSTRUCTION COMPANY, INC.
Computation of Cost of Uncompleted Contract
In Excess of Related Billings
December 31, 2011

Balance, December 31, 2010—excess of billings over costs	£ (260,000)
Add construction costs incurred during 2011 (£3,290,000 – £1,140,000)	2,150,000
	1,890,000
Deduct provision for loss on contract recognized during 2011 (£3,290,000 + £1,410,000 – £4,400,000)	300,000
	1,590,000
Deduct partial billings during 2011 (£2,500,000 – £1,400,000)	1,100,000
Balance, December 31, 2011	£ 490,000

PROBLEM 18-8 (Continued)

MONAT CONSTRUCTION COMPANY, INC.
Computation of Costs Relating to Substantially Completed Contract in Excess of Billings
December 31, 2012

Balance, December 31, 2011—excess of costs over billings	£ 490,000
Add construction costs incurred during 2012 (£4,800,000 – £3,290,000)	1,510,000
	2,000,000
Deduct loss on contract recognized during 2012 (£4,800,000 – £4,400,000 – £300,000)	100,000
	1,900,000
Deduct partial billings during 2012 (£4,300,000 – £2,500,000)	1,800,000
Balance, December 31, 2012	£ 100,000

(b)

MONAT CONSTRUCTION COMPANY, INC.
Computation of Profit or Loss to be Recognized On Uncompleted Contract
Year Ended December 31, 2010

Contract price		£4,400,000
Deduct contract costs:		
Incurred to December 31, 2010	£1,140,000	
Estimated costs to complete	2,660,000	
Total estimated contract cost		3,800,000
Estimated gross profit on contract at completion		£ 600,000
Profit to be recognized		£ 0

(The cost-recovery method recognizes income only after all costs are incurred.)

PROBLEM 18-8 (Continued)

MONAT CONSTRUCTION COMPANY, INC.
Computation of Loss to be Recognized
On Uncompleted Contract
Year Ended December 31, 2011

Contract price		£4,400,000
Deduct contract costs:		
Incurred to December 31, 2011..................	£3,290,000	
Estimated costs to complete	1,410,000	
Total estimated contract cost		4,700,000
Loss to be recognized................................		£ (300,000)

(The cost-recovery method requires that provision should be made for an expected loss.)

MONAT CONSTRUCTION COMPANY, INC.
Computation of Loss to Be Recognized
On Substantially Completed Contract
Year Ended December 31, 2012

Contract price	£4,400,000
Deduct contract costs incurred..................................	4,800,000
Loss on contract...	(400,000)
Deduct provision for loss booked	
at December 31, 2011	300,000
Loss to be recognized..	£ (100,000)

PROBLEM 18-9

Dear Sue:

This letter regards the revenue recognition matter which we discussed earlier. By using a recognition method called percentage-of-completion, you will show a profit in every year of the construction project, assuming, of course, that no unexpected losses occur.

The cost-recovery method which you use presumes that revenue from the contract is not truly earned until after all costs are incurred. Although costs associated with the contract and billings to the customer are recorded, revenue is only recorded up to the costs incurred. The actual gross profit is not recognized until the year of project completion.

The percentage-of-completion method, on the other hand, presumes that, as portions of the contract are completed, part of the gross profit is being earned as well. Therefore, it attempts to measure the degree of the project's completion at each year-end. (This method assumes that the contract will be completed.)

The most frequently used measure of this degree of completion is the cost-to-cost method, which determines the percentage of a project's completion as the ratio of costs that have already been incurred to the total estimated costs required in order to finish the project. This percentage is then applied to the total contract price or gross profit to arrive at the amount of revenue or gross profit recognized for the period.

In succeeding periods, the above ratio becomes larger as the project nears completion. (If the estimated costs to complete the contract have changed, the ratio's denominator as well as its numerator should be adjusted.) The new ratio will still be applied to the total contract price or gross profit, this time subtracting out the portion of revenue (or gross profit) already recognized in earlier periods.

To help you see the advantages of this method, I have computed the amount of gross profit you would have recognized on the building contract if you had used the percentage-of-completion method. Referring to the accompanying schedule, you will see that, in 2010, 2011, and 2012, you would have recognized gross profits of $90,000, $135,000, and $85,000, respectively. Although the amount recognized in 2012 is significantly lower than it would have been under the cost-recovery method, the amounts recognized in

PROBLEM 18-9 (Continued)

2010 and 2011 actually allow you to show a profit before the project has been finished. In addition, where applicable, IFRS require the use of the percentage-of-completion method in preference to the cost-recovery method.

I hope you find this information helpful.

Sincerely,

A. Smart Student

PROBLEM 18-9 (Continued)

Percentage-of-Completion Method
Three-Year Schedule of Gross Profit Recognition

Gross profit recognized in 2010:		
Contract price		$1,100,000
Costs:		
Costs to date	$240,000	
Estimated additional costs	560,000	800,000
Total estimated profit		300,000
Percentage completion to date ($240,000/$800,000)		30%
Gross profit recognized in 2010		$ 90,000
Gross profit recognized in 2011:		
Contract price		$1,100,000
Costs:		
Costs to date	$600,000	
Estimated additional costs	200,000	800,000
Total estimated profit		300,000
Percentage completion to date ($600,000/$800,000)		75%
Total gross profit recognized		225,000
Less: Gross profit recognized in 2010		(90,000)
Gross profit recognized in 2011		$ 135,000
Gross profit recognized in 2012:		
Contract price		$1,100,000
Costs:		
Costs to date	$790,000	
Estimated additional costs	0	790,000
Total estimated profit		310,000
Percentage completion to date ($790,000/$790,000)		100%
Total gross profit recognized		310,000
Less: Gross profit recognized in 2010 and 2011 ($90,000 + $135,000)		225,000
Gross profit recognized in 2012		$ 85,000

PROBLEM 18-10

(a) Schedule to Compute Gross Profit for 2010

		A	B	C	D	E
Estimated profit (loss):						
A:	($300,000 – $320,000)	$(20,000)				
B:	($350,000 – $339,000)		$11,000			
C:	($280,000 – $186,000)			$94,000		
D:	($200,000 – $205,000)				$(5,000)	
E:	($240,000 – $200,000)					$40,000
A:	(not applicable)	—				
B:	($67,800 ÷ $339,000)		20%			
C:	($186,000 ÷ $186,000)			100%		
D:	(not applicable)				—	
E:	($190,000 ÷ $200,000)					95%
Gross profit (loss) recognized		$(20,000)	$ 2,200	$94,000	$(5,000)	$38,000

Schedule to Compute Unbilled Contract Costs and Recognized Profit and Billings in Excess of Costs and Recognized Profit

	Costs and Estimated Profits or Losses	Related Billings	Costs and Estimated Profits in Excess of Billings	Billings in Excess of Costs and Estimated Profits
A	$228,000[a]	$200,000	$ 28,000	
B	70,000[b]	110,000		$40,000
D	113,000[c]	35,000	78,000	
E	228,000[d]	205,000	23,000	
	$639,000	$550,000	$129,000	$40,000

[a]$248,000 – $20,000
[b]$ 67,800 + $ 2,200
[c]$118,000 – $ 5,000
[d]$190,000 + $38,000

PROBLEM 18-10 (Continued)

(b) **Partial Income Statement**

Revenue from long-term contracts	$925,622*
Costs of construction	
($252,500 + $67,800 + $186,000 + $120,122 + $190,000)	816,422
Gross profit	$109,200

*A:	$300,000 X ($248,000 ÷ $320,000) =	$232,500
B:	$350,000 X ($ 67,800 ÷ $339,000) =	70,000
C:	$280,000 X ($186,000 ÷ $186,000) =	280,000
D:	$200,000 X ($118,000 ÷ $205,000) =	115,122
E:	$240,000 X ($190,000 ÷ $200,000) =	228,000
	Total revenue recognized	$925,622

Partial Statement of Financial Position

Current assets:		
Inventories		
Construction in process.................................	$569,000**	
Less: Billings...	440,000***	
Costs and recognized profits in excess of billings (project A, D, and E)		$129,000
Accounts receivable ($830,000 – $765,000)..................................		65,000
Current liabilities:		
Billings	$110,000	
Less Construction in process.......................	70,000	
Billings in excess of costs and recognized profit		$ 40,000

Project	Costs	Profit/(loss)	Construction in Process	Billings
A	$248,000	$(20,000)	$228,000	$200,000
D	118,000	(5,000)	113,000	35,000
E	190,000	38,000	228,000	205,000
Total	$556,000	$ 13,000	$569,000**	$440,000***

(c) **Schedule to Compute Gross Profit for 2010**

		A	B	C	D	E
A:	($300,000 – $320,000)	$(20,000)				
B:	Not completed		–0–			
C:	($280,000 – $186,000)			$94,000		
D:	($200,000 – $205,000)				$(5,000)	
E:	Not completed					–0–
Gross profit (loss) recognized		$(20,000)	–0–	$94,000	$(5,000)	–0–

Schedule to Compute Unbilled Contract Costs and Billings in Excess of Costs

	Costs and Estimated Profits or Losses	Related Billings	Costs and Estimated Losses in Excess of Billings	Billings in Excess of Costs
A	$228,000[a]	$200,000	$ 28,000	
B	67,800	110,000		$42,200
D	113,000[b]	35,000	78,000	
E	190,000	205,000		15,000
	$598,800	$550,000	$106,000	$57,200

[a]$248,000 – $20,000
[b]$118,000 – $5,000

(d) The principal advantage of the cost-recovery method is that it reports revenue only on the costs incurred and not on estimates made throughout the construction period. However, the disadvantage of using this method is that for contracts which extend more than one accounting period, income recognition is distorted. For example, in this exercise Buhl Construction Company would recognize $40,200 less gross profit using the cost-recovery method than if it was using the percentage-of-completion method. This difference exists because the only project completed at the end of 2010 was project C and so that is the only project from which Buhl may recognize gross profit. Therefore, even though a portion of the work was completed on projects B and E, no gross profit can be recognized until after all costs for those projects are incurred.

On the other hand, the percentage-of-completion method does recognize revenue and gross profit before the completion of a project. If Buhl can determine reliable estimates of its progress and meets the other conditions for this method, Buhl can recognize revenues as the work progresses. The use of this method provides financial statement users with a more current picture of the results of the company's operations; however, problems may occur if the estimates are poor. If revised estimates, or even rising costs, show that a project will result in a loss, the company must offset gross profit previously recognized for that project. Thus, it is possible that the financial statements may present a good picture one year and the next year present a picture that is not as good.

The end results will be the same under either method and so the difference is simply one of timing. Therefore, if a company can determine reliable estimates of its progress towards completion and meets the required conditions, the percentage-of-completion method is preferred. Otherwise the cost-recovery method is more appropriate.

PROBLEM 18-11

(a)	Television	€2,000/€2,400	X	€2,300	=	€1,917
	Warranty	€ 400/€2,400	X	€2,300	=	€ 383
		€2,400				

(b)	Cash	2,300	
	Sales		1,917
	Unearned Warranty Revenue		383

(c) **2011**

Warranty revenue (€383 ÷ 3)	€128
2012 revenue (€383 ÷ 3)	€128

PROBLEM 18-12

1.	Accounts Receivable	213,400	
	Sales ($220,000 X 97%)		213,400
2.	Cash	2,000	
	Sales		2,000
3.	Cash	100,000	
	Sales		97,030
	Unearned Warranty Revenue		2,970

Equipment	£98,000/£101,000	X	£100,000	=	£97,030
Warranty	£ 3,000/£101,000	X	£100,000	=	£ 2,970

PROBLEM 18-13

1.	Notes Receivable	20,000	
	Sales..		20,000

Total revenue recognized in 2010: £22,000 (£20,000 + £2,000 interest)

2.	Cash	4,200	
	Commission Revenue (£3,500 X 20 X 6%)		4,200

3.		Revenue
	January	—
	February (€16,000 X 20%)	€3,200
	March (€16,000 X 40%)	€6,400
	April (€16,000 X 40%)	€6,400

TIME AND PURPOSE OF CONCEPTS FOR ANALYSIS

CA 18-1 (Time 20–30 minutes)
Purpose—to provide a situation that requires an examination and application of the earning and realization elements of three revenue recognition methods. The three business situations require the computation of revenue to be recognized.

CA 18-2 (Time 35–45 minutes)
Purpose—to provide the student with an understanding of the conceptual merits of recognizing revenue at the point of sale. The student is required to explain and defend the reasons why the point of sale is usually used as the basis for the timing of revenue recognition, plus describe the situations where revenue would be recognized during production or when cash is received, and the accounting merits of utilizing each of these bases of timing revenue recognition.

CA 18-3 (Time 25–30 minutes)
Purpose—to provide the student with an understanding of the conceptual factors underlying the recognition of revenue. The student is required to explain and justify why revenue is often recognized as earned at the time of sale, the situations when it would be appropriate to recognize revenue as the productive activity takes place, and any other times that may be appropriate to recognize revenue.

CA 18-4 (Time 30–35 minutes)
Purpose—to provide the student with an understanding of the criteria and applications utilized in the determination of the proper accounting for revenue recognition. The student is required to discuss the factors to be considered in determining when revenue should be recognized, plus apply these factors in discussing the accounting alternatives that should be considered for the recognition of revenues and related expenses with regard to the information presented in the case.

CA 18-5 (Time 35–45 minutes)
Purpose—to provide the student an opportunity to explain how a magazine publisher should recognize subscription revenue. The case is complicated by a 25% return rate and a premium offered to subscribers. The effect on the current ratio must be discussed.

CA 18-6 (Time 20–25 minutes)
Purpose—to provide the student an opportunity to discuss the theoretical justification for use of the percentage-of-completion method. The student explains how progress billings are accounted for and how to determine the income recognized in the second year of a contract by the percentage-of-completion method. The student indicates the effect on earnings per share in the second year of a four-year contract from using the percentage-of-completion method instead of the cost-recovery method.

CA 18-7 (Time 30–40 minutes)
Purpose—provides the student a recreational real estate development for which revenue recognition requires analysis and good judgment. The sale of lake lots is the basic transaction.

CA 18-8 (Time 25–30 minutes)
Purpose—to provide the student an ethical situation concerning revenue related to various transactions. Issues include membership fees, down payments, and sales with guarantees.

CA 18-9 (Time 20–25 minutes)
Purpose—to provide the student an ethical situation related to the recognition of revenue from membership fees.

***CA 18-10** (Time 35–45 minutes)
Purpose—to provide the student with an understanding of the accounting treatment accorded franchising operations. The student is required to discuss the alternatives that the franchisor might use to account for the initial franchise fee, evaluate each by applying IFRS to the case situation, and give an illustrative journal entry for each alternative. The student is also asked to apply the above concepts in determining when revenue should be recognized, given the nature of the franchisor's agreement with its franchisees.

SOLUTIONS TO CONCEPTS FOR ANALYSIS

CA 18-1

(a) Definitions and descriptions of each of the three noted revenue recognition methods, and an indication as to whether they are in accordance with IFRS, are presented below.

1. The **completion-of-production** method allows revenue to be recognized when production is complete even though a sale has not yet been made. The circumstances that justify revenue recognition at this point are:

   - The product is sold in a market with a reasonably assured selling price.
   - The costs of selling and distributing the product are insignificant and can reasonably be estimated.
   - Production, rather than sale, is considered the most critical event in the earnings process.

   This method is in accordance with IFRS; however, it is an exception to the normal revenue recognition rules.

2. The **percentage-of-completion** method is used on long-term projects and the following conditions must exist for its use:

   - A firm contract price with a high probability of collection.
   - A reasonably accurate estimate of costs.
   - A way to reasonably estimate the extent of progress to the completion of the project.

   Gross profit is recognized in proportion to the work completed. Normally, progress is measured as a percentage of the actual costs to date to the estimated total costs, or some other method that reasonably estimates actual completion.

   The method is in accordance with IFRS for long-term projects when estimates are dependable.

3. The cost-recovery method is used when the criteria for using the percentage-of-completion method are not met, or when there are inherent hazards in the contract beyond normal recurring business risks. Contract revenue is recognized only to the extent of costs incurred that are expected to be recoverable. Once all costs are recognized profit is recognized.

(b) The revenue to be recognized in the fiscal year ended November 30, 2010, for each of the three companies is as calculated and presented below:

1. Farber Mining would recognize as revenue the market price of metals mined during the year.

Silver	$ 750,000
Gold	1,400,000
Platinum	490,000
Total revenues	$2,640,000

CA 18-1 (Continued)

2. Enyart Paperbacks would recognize revenue of €5,600,000, calculated as follows.

Sales in fiscal 2010	€7,000,000
Less: Estimated sales returns and allowances (20%)	1,400,000
Net sales—revenue to be recognized in fiscal 2010	€5,600,000

Although book distributors can return up to 30 percent of sales, prior experience indicates that 20 percent of sales is the expected average amount of returns. The collection of 2009 sales has no effect on fiscal 2010 sales recognition. The 21 percent of returns on the initial €4,800,000 of 2010 sales confirms that 20 percent of sales will provide a reasonable estimate.

3. Glesen Protection Devices would recognize revenue of $5,000,000. Revenue to be recognized represents the amount of goods actually billed and shipped when the method of recognizing revenue is at the point of sale (terms are F.O.B. shipping point).

CA 18-2

(a) The point of sale is the most widely used basis for the timing of revenue recognition because in most cases it provides the degree of objective evidence accountants consider necessary to reliably measure periodic business income. In other words, sales transactions with outsiders represent the point in the revenue-generating process when most of the uncertainty about the final outcome of business activity has been alleviated.

It is also at the point of sale in most cases that substantially all of the costs of generating revenues are known, and they can at this point be matched with the revenues generated to produce a reliable statement of a firm's effort and accomplishment for the period. Any attempt to measure income prior to the point of sale would, in the vast majority of cases, introduce considerably more subjectivity in financial reporting than most accountants are willing to accept.

(b) 1. Though it is recognized that revenue is earned throughout the entire production process, generally it is not feasible to measure revenue on the basis of operating activity. It is not feasible because of the absence of suitable criteria for consistently and objectively arriving at a periodic determination of the amount of revenue to recognize.

Also, in most situations the sale represents the most important single step in the earnings process. Prior to the sale, the amount of revenue anticipated from the processes of production is merely prospective revenue; its realization remains to be validated by actual sales. The accumulation of costs during production does not alone generate revenue. Rather, revenues are earned by the completion of the entire process, including making sales.

Thus, as a general rule, the sale cannot be regarded as being an unduly conservative basis for the timing of revenue recognition. Except in unusual circumstances, revenue recognition prior to sale would be anticipatory in nature and unverifiable in amount.

2. To criticize the sales basis as not being sufficiently conservative because accounts receivable do not represent disposable funds, it is necessary to assume that the collection of receivables is the decisive step in the earnings process and that periodic revenue measurement and, therefore, net income should depend on the amount of cash generated during the period. This assumption disregards the fact that the sale usually represents the decisive

factor in the earnings process and substitutes for it the administrative function of managing and collecting receivables. In other words, the investment of funds in receivables should be regarded as a policy designed to increase total revenues, properly recognized at the point of sale, and the cost of managing receivables (e.g., bad debts and collection costs) should be matched with the sales in the proper period.

The fact that some revenue adjustments (e.g., sales returns) and some expenses (e.g., bad debts and collection costs) may occur in a period subsequent to the sale does not detract from the overall usefulness of the sales basis for the timing of revenue recognition. Both can be estimated with sufficient accuracy so as not to detract from the reliability of reported net income.

Thus, in the vast majority of cases for which the sales basis is used, estimating errors, though unavoidable, will be too immaterial in amount to warrant deferring revenue recognition to a later point in time.

(c) 1. **During production.** This basis of recognizing revenue is frequently used by firms whose major source of revenue is long-term construction projects. For these firms the point of sale is far less significant to the earnings process than is production activity because the sale is assured under the contract (except of course where performance is not substantially in accordance with the contract terms).

To defer income recognition until the completion of long-term construction projects could impair significantly the usefulness of the intervening annual financial statements because the volume of contracts completed during a period is likely to bear no relationship to production volume. During each year that a project is in process a portion of the contract price is, therefore, appropriately recognized as that year's revenue. The amount of the contract price to be recognized should be proportionate to the year's production progress on the project.

Income might be recognized on a production basis for some products whose salability at a known price can be reasonably determined as might be the case with some precious metals and agricultural products.

It should be noted that the use of the production basis in lieu of the sales basis for the timing of revenue recognition is justifiable only when total profit or loss on the contracts can be estimated with reasonable accuracy and its ultimate realization is reasonably assured.

2. **At end of production.** The cost-recovery method recognizes contract revenue only to the extent of costs incurred that are expected to be recoverable. Once all costs are recognized, profit is recognized.

Companies use the cost-recovery method when a company cannot meet the conditions for using the percentage-of-completion method, or when there are inherent hazards in the contract beyond the normal, recurring business risks.

CA 18-3

(a) Most merchandising concerns deal in finished products and would recognize revenue at the point of sale. This is often identified as the moment when the title legally passes from seller to purchaser. At the point of sale, there is an arm's-length transaction to objectively measure the amount of revenue to be recognized. With accounting theory based heavily on objective measurement, it is logical that point-of-sale transaction revenue recognition would be used by many firms, especially merchandising concerns.

Other advantages of point-of-sale timing for revenue recognition include the following:

1. It is a discernible event (as contrasted to the accretion concept).
2. The seller has completed his/her part of the bargain—that is, the revenue has been earned with the passage of title when the goods are delivered.
3. Realization has occurred in the sense that cash or near-cash assets have been received—there is some merit in the position that it is not earned revenue until cash or near-cash assets have been received.
4. The seller's costs have been incurred with the result that net income can be measured.

(b) For service-type transactions, revenue is generally recognized on the basis of the seller's performance of the transaction with performance being the execution of a defined act or acts or the passage of time. Service-type firms may select from recommended methods to recognize revenue: (1) specific performance method, (2) completed performance method, and (3) proportional performance method.

In some non-service firms, revenue can be recognized as the productive activity takes place instead of at a later period (as at point of sale). The most common situation where revenue is recognized as production takes place has been through the application of percentage-of-completion accounting to long-term construction contracts. Under this procedure, revenue is approximated based on degree of contract performance to date and recorded as earned in the period in which the productive activity takes place.

A similar situation is present where, applying the accretion concept, the recognition of revenue takes place when increased values arise from natural growth or an aging process. In an economic sense, increases in the value of inventory give rise to revenue.

Revenue recognition by the accretion concept is not the result of recorded transactions, but is accomplished by the process of making comparative inventory valuations. Examples of applying the accretion concept would include the aging of certain liquors and wines, growing timber and raising livestock.

(c) Revenue is sometimes recognized at completion of the production activity. The recognition of revenue at completion of production is justified only if certain conditions are present. The necessary conditions are that there must be a relatively stable market for the product, marketing costs must be nominal, and the units must be homogeneous. These three necessary conditions are not often present except in the case of certain precious metals and agricultural products. In these situations it has been considered appropriate to recognize revenue at the completion of production.

CA 18-4

(a) Income results from economic activity in which one entity furnishes goods or services to another. To warrant revenue recognition, the earnings process must be substantially complete and there must be a change in net assets that is capable of being objectively measured. Normally, this involves an arm's-length exchange transaction with a party external to the entity. The existence and terms of the transaction may be defined by operation of law, by established trade practice, or may be stipulated in a contract.

Events that give rise to revenue recognition are: the completion of a sale; the performance of a service; the progress of a long-term construction project, as in ship-building; or the production of a standard interchangeable good (such as a precious metal or an agricultural product) which has an immediate market, a determinable market value, and only minor costs of marketing. The passing of time may also be the event that establishes the recognition of revenues, as in the case of interest or rental revenue.

As a practical consideration, there must be a reasonable degree of certainty in measuring the amount of revenue. Problems of measurement may arise in estimating the degree of completion of a contract, the net realizable value of a receivable, or the value of a non-monetary asset received in an exchange transaction. In some cases, while the revenue may be readily measured, it may be impossible to reasonably estimate the related expenses. In such instances, revenue recognition must be deferred until the matching process can be completed.

(b) Griseta & Dubel Inc., in effect, is a merchandising firm which collects cash (for merchandise credits) far in advance of furnishing the goods. In addition, since the data indicate that about 5 percent of the credits sold will never be redeemed, it also has revenue from this source unless these credits are redeemed. Griseta & Dubel's revenues from these two sources could be recognized on one of three major bases. First, all revenue could be recognized when the credits are sold—the sales basis or cash-collection basis if all sales are for cash. Second, amounts collected at the time credits are sold could be treated as an advance (sometimes referred to as deferred or unearned revenue) until credits are exchanged for the merchandise premiums at which time all of the revenue, including that relating to the never-to-be-redeemed credits, could be recognized. Third, some revenue could be recognized at the time the credits are sold, and the balance could be recognized at the time of redemption—this treatment would be especially appropriate for approximately 5 percent of the total, the credits that will never be redeemed. A modification of this basis would be to recognize the revenue from the never-to-be-redeemed credits on a passage-of-time basis.

The principal expense, merchandise premium costs, should be matched with the revenue. If all revenue is recognized when credits are sold, an accrual of the cost of the future premium redemptions would be necessary. In such a case, when credit redemptions and related premium issuances occurred, the costs of the premiums would be charged to the accrued liability account. On the other hand, if credit sales were treated as an advance, the deferred revenue would be recognized and the matching cost of the premiums issued would be recognized with the revenue at the time of redemption.

Under the third alternative, some predetermined portion of the revenue from the never-to-be-redeemed credits, would be recognized when the credits are sold, but the recognition of the merchandise premium expense would be deferred until time of recognition.

Reasonable estimation is crucial to income determination. Under the first alternative, it is necessary to estimate future costs of premium issuances well in advance of the actual occurrence. In the second case, it is necessary to estimate the proportion of revenue which has already been earned on the basis of premium costs already incurred. It is a virtual certainty that not all credits sold will ultimately be presented for redemption. Such factors as the number of credits required to fill a book, the types of customers who receive credits, and the ease of exchanging credits for

CA 18-4 (Continued)

premiums will all affect the proportion of credits actually redeemed in relation to the potential redemptions. The difference between the five percent initial estimate and the actual proportion of unredeemed credits affects the accrual of a liability for redemption of credits issued under the first method and the rate of transfer of revenue from the advances account under the second and third methods.

There will be other expenses aside from the costs of premiums issued but they should be relatively small after the initial promotion period and they should be accounted for under the usual principles which apply to accrual-basis accounting. Thus, premium catalogs printed but undistributed would ordinarily be treated as prepaid expenses; wages and salaries would be treated as expenses when incurred; depreciation, taxes, and similar expenses would be recognized in the usual manner.

(c) Under all of the alternatives, Griseta & Dubel's major asset (in terms of data given in the question) would be its inventory of premiums. The major account with a credit balance would be either an estimated liability for cost of redeeming the outstanding credits under the first alternative or an advance (deferred revenue) account under the second and third alternatives. In view of the nature of the operation, the inventory account(s) would be included in the current asset classification and the liability would be classified as current. The advances would be reported preferably as a current liability.

CA 18-5

(a) Receipts based on subscriptions should be credited to unearned revenue. As each monthly issue is distributed, the unearned revenue is reduced (Dr.) and earned revenue is recognized (Cr.). A problem results because of the unqualified guarantee for a full refund. Certain companies experience such a high rate of returns to sales that they find it necessary to postpone revenue recognition until the return privilege has substantially expired. Cutting Edge is expecting a 25% return rate and it will not expire until the new subscriptions expire. IFRS requires that revenue should not be recognized currently unless it is probable that the economic benefits flow to the company and the benefits can be measured reliably.

Cutting Edge has met the above conditions. Consequently, revenue **should be** recognized as each issue is distributed.

(b) The expected sales return must be indicated when revenue is recognized. Since Cutting Edge is expecting a 25% return rate, as each issue is distributed and revenue is recognized, an amount equal to one-fourth of the earned revenue must be recognized for returns and allowances.

Sales Returns	xxx	
Allowance for Sales Returns and Allowances.....................................		xxx

This is necessary because the expense recognition principle requires that the expected return be recognized at the same time revenue is recognized. The account entitled Allowance for Sales Returns and Allowances is a contra-revenue account. There is some controversy, however, over how the Allowance for Sales Returns and Allowances is classified. As long as subscribers pay in cash, the Allowance for Sales Returns and Allowances cannot be a contra-asset. But is it reasonable for the account to be a liability? According to **IFRS,** a liability is a transaction of the past requiring future outlay of cash and is estimable. Since the allowance for sales returns has the characteristics of a liability as stated above, it is indeed reasonable to classify it as a liability.

CA 18-5 (Continued)

(c) Since the atlas premium may be accepted whenever requested, it is necessary for Cutting Edge to record a liability for estimated premium claims outstanding. According to **IFRS,** the premium liability is a provision which should be reported since it can be reliably estimated [60% of the new subscribers X (cost of atlas – $2)] and its occurrence is probable. As the new subscription is obtained, Cutting Edge should record the provision as follows:

Premium Expense	XXX	
Premium Liability		XXX

Upon request for the atlas and payment of $2 by the new subscriber, Cutting Edge should record:

Cash	XXX	
Premium Liability	XXX	
Inventory of Premiums		XXX

(d) The current ratio (Current Assets/Current Liabilities) will change, but not in the direction Embry thinks. As subscriptions are obtained, current assets (cash or accounts receivable) will increase and current liabilities (unearned revenue) will increase by the same amount. In addition, the liabilities for premium claims and the allowance for sales returns will increase with no change in current assets. Consequently, the current ratio will decrease rather than increase as proposed. Naturally as the revenue is earned, these ratios will become more favorable. Similarly, the debt to equity ratio will not be decreased due to the increase in liabilities.

CA 18-6

(a) Widjaja Company should recognize revenue as it performs the work on the contract (the percentage-of-completion method) because the right to revenue is established and collectibility is reasonably assured. Furthermore, the use of the percentage-of-completion method avoids distortion of income from period to period and provides for better recognition of expenses with the related revenues.

(b) Progress billings would be accounted for by increasing accounts receivable and increasing progress billings on contract, a contra-asset that is offset against the construction in process account. If the construction in process account exceeds the billings on construction in process account, the two accounts would be shown net in the current assets section of the statement of financial position. If the billings on construction in process account exceeds the construction in process account, the two accounts would be shown net, in most cases, in the current liabilities section of the statement of financial position.

(c) The income recognized in the second year of the four-year contract would be determined using the cost-to-cost method of determining percentage of completion as follows:

1. The estimated total income from the contract would be determined by deducting the estimated total costs of the contract (the actual costs to date plus the estimated costs to complete) from the contract price.

2. The actual costs to date would be divided by the estimated total costs of the contract to arrive at the percentage completed. This would be multiplied by the estimated total income from the contract to arrive at the total income recognizable to date.

3. The income recognized in the second year of the contract would be determined by deducting the income recognized in the first year of the contract from the total income recognizable to date.

CA 18-6 (Continued)

(d) Earnings per share in the second year of the four-year contract would be higher using the percentage-of-completion method instead of the cost-recovery method because income would be recognized in the second year of the contract using the percentage-of-completion method, whereas no income would be recognized in the second year of the contract using the cost-recovery method.

CA 18-7

(a) IFRS provides two criteria, both of which must be met; it is probable that the economic benefits flow to the company and the benefits can be measured reliably. In this scenario, satisfaction of those two criteria is questionable. First, the development is not completed; thus, the seller does have significant activities to complete. If the developer fails to complete the development, it is very reasonable to expect the buyers to stop making payment on their notes. In fact, they will probably initiate legal proceedings (class action suit) against the seller. The seller does not receive cash at the time of the "sale" and for all practical purposes is the holder of the notes.

(b) This is the critical issue—what is the experience, financial status, and integrity of the developer? The accountant's judgment should be strongly influenced by the background of management. If the developer has good experience and financial backing, consequently a high probability of project completion and customer satisfaction, one could recognize revenue as the development is being completed. If the developer has poor experience, worse—a bad reputation, revenue should not be recognized until the development is substantially complete. The objective of this question is to stimulate discussion of these professional judgment issues.

(c) If the developer is financially sound and there is good reason to expect completion:

Notes Receivable	750,000	
Sales Revenue (50 X $15,000)		750,000
Cost of Sales	150,000	
Developed Land (50 X $3,000)		150,000
Promotion Expense	35,000	
Cash (50 X $700)		35,000

If the financial security of the developer is questionable:

Notes Receivable	750,000	
Unearned Revenue (50 X $15,000)		750,000
Promotion Expense	35,000	
Cash (50 X $700)		35,000

(d) Notes to the financial statements should summarize the terms of the sale of lots, discuss the amount of development work which remains to be completed, the expected time of completion, and the major terms of the developer's credit line.

CA 18-8

(a) 1. NHRC should recognize revenue on the following bases:

- The membership fees, which are paid in advance and sold with a money-back guarantee, should be recognized as revenue over the life of the membership. Each month, NHRC earns one-twelfth of the revenue. This results in a liability for the unearned and potentially refundable portion of the fee. For those membership fees that are financed, interest is recognized as time passes at the rate of 9 percent per annum.

- Court rental fees should be recorded as revenue as the members use the courts.

- Revenue from the sale of coupon books should be recorded when the coupons are redeemed; i.e., when members attend aerobics classes. At year-end, an adjustment should be made to recognize the revenue from unused coupons that have expired.

2. Since NHRC has not provided any service when the down payment for equipment is received, the down payment should be treated as a current liability until delivery of the equipment is made.

3. Since NHRC expects to incur costs under the guarantee and these costs can be estimated, an amount equal to 4 percent of the total revenue should be accrued in the accounting period in which the sale is recorded.

(b)

- <u>Competence</u>
  Bush has an obligation: (1) to perform his professional duties in accordance with relevant technical standards and (2) to prepare complete and clear reports after appropriate analyses of relevant and reliable information. Bush's proposed changes to the financial statements are not in accordance with IFRS and, therefore, will not result in clear reports based on reliable information.

- <u>Confidentiality</u>
  Bush has an obligation to refrain from using or appearing to use confidential information acquired in the course of his work for unethical personal advantage. If Bush is proposing the accounting changes to increase his year-end bonus, as Kiley believes, he has misused confidential information.

- <u>Integrity</u>
  By insisting on making the adjustments to the financial statements to cover up unfavorable information and increase his bonus, Bush has: (1) failed to avoid a conflict of interest, (2) prejudiced his ability to carry out his duties ethically, (3) subverted the attainment of the organization's legitimate and ethical objectives, (4) failed to communicate unfavorable as well as favorable information, and (5) engaged in an activity that discredits his profession.

- <u>Objectivity</u>
  Bush's proposals do not communicate information fairly and objectively nor will they disclose all relevant information that could reasonably be expected to influence an intended user's understanding of the financial statements.

CA 18-8 (Continued)

(c) Joyce Kiley may wish to speak to Bush again regarding the IFRS violations to ensure that she understands his position. In order to resolve the situation, Kiley should follow the policies established by NHRC for the resolution of ethical conflicts. If the company does not have such a policy or the policy does not resolve the conflict, Kiley should consider the following course of action:

1. Since her immediate supervisor is involved in the situation, Kiley should take the issue to the next higher managerial level. Kiley need not inform Bush of this step because of his involvement.

2. If there is no resolution, Kiley should continue to present the problem to successively higher levels of internal review; i.e., audit committee, Board of Directors.

3. Kiley should have a confidential discussion of her options with an objective advisor to obtain a clearer understanding of possible courses of action.

4. After exhausting all levels of internal review without resolution, Kiley may have no other recourse than to resign her position. Upon doing so, she should submit an informative memorandum to an appropriate representative of the organization.

5. Kiley should not communicate with individuals outside of the organization about this situation unless legally prescribed to do so.

CA 18-9

(a) Honesty and integrity of financial reporting versus higher corporate profits are the ethical issues. Nies's position represents IFRS. The financial statements should be presented fairly and that will not be the case if Avery's approach is followed. External users of the statements such as investors and creditors, both current and future, will be misled.

(b) Nies should insist on statement presentation in accordance with IFRS. If Avery will not accept Nies's position, Nies will have to consider alternative courses of action, such as contacting higher-ups at Middle-South, and assess the consequences of each.

*CA 18-10

(a) Two primary criteria must be met before revenue is recognized: (1) it is probable that the economic benefits flow to the company, and (2) the benefits can be measured reliably. Several issues arise when applying these criteria in accounting for the initial franchise fee. The first concerns the time of recognition of the fee as revenue—to which of several possible periods should it be assigned? The second relates to the amount of revenue to be recognized and this, in turn, is partially a question of the valuation of the notes received. Possible alternative methods are illustrated and evaluated as follows:

*CA 18-10 (Continued)

1.

Cash	20,000	
Notes Receivable	75,816	
Revenue from Franchise Fees		95,816

This method would be acceptable if (a) the probability of refunding the initial fee was extremely low, and (b) the amount of future services to be provided to the franchisee was minimal; that is, performance by the franchisor is deemed to have taken place.

2.

Cash	20,000	
Notes Receivable	75,816	
Unearned Franchise Fees		95,816

This method would be appropriate if (a) there was a reasonable expectation that the down payment may be refunded, and (b) substantial future services are to be provided to the franchisee; that is, performance by the franchisor has not yet occurred.

3.

Cash	20,000	
Notes Receivable	75,816	
Revenue from Franchise Fees		20,000
Unearned Franchise Fees		75,816

The assumptions underlying this alternative are that (a) the down payment of $20,000 is not refundable and represents a fair measure of services provided to the franchisee at the time the contract is signed, and (b) a significant amount of service is to be performed by the franchisor in future periods.

4.

Cash	20,000	
Revenue from Franchise Fees		20,000

This procedure would be consistent with the cash basis of accounting and would be considered appropriate in situations where (a) the initial fee is not refundable, (b) the contract does not call for a substantial amount of future services to the franchisee, and (c) the collection of any part of the notes is so uncertain that recognition of the notes as assets is unwarranted.

5.

Cash	20,000	
Unearned Franchise Fees		20,000

The assumption underlying this procedure is that either the down payment is refundable or substantial services must be performed by the franchisor before the fee can be considered earned. As in alternative 4., the collection of any portion of the notes receivable is so uncertain that recognition in the accounts cannot be considered appropriate.

*CA 18-10 (Continued)

6. Three additional alternatives would parallel the first three alternatives given above, except that the notes would be reported at their face value. These alternatives would be appropriate in situations where the notes bear interest or call for the payment of interest at the going rate.

(b) Because the initial cash collection of $20,000 must be refunded if the franchise fails to open, it is not fully earned until the franchisee begins operations. Thus, Amigos Burrito should record the initial franchise fee as follows:

Cash	20,000	
Notes Receivable	75,816	
Unearned Franchise Fees		95,816

When the franchisee begins operations, the $20,000 would be earned and the following entry should be made:

Unearned Franchise Fee	20,000	
Revenue from Franchise Fees		20,000

If there is no time lag between the collection of the $20,000 and the opening by the franchisee, then the initial cash collection of $20,000 is earned when it is received and the initial franchise fee should be recorded as follows:

Cash	20,000	
Notes Receivable	75,816	
Unearned Franchise Fees		75,816
Revenue from Franchise Fees		20,000

After Amigos Burrito Inc. has experienced the opening of a large number of franchises, it should be possible to develop probability measures so that the expected value of the retained initial franchise fee can be determined and recorded as earned at the time of receipt.

The notes receivable are properly recorded at their present value. No more than $75,816, the net present value of the notes, should be reported as an asset. Interest at 10% should be accrued each year by a debit to Notes Receivable and a credit to Interest Revenue. Collections are recorded as debits to Cash and credits to Notes Receivable. Each year as the services are rendered, an appropriate amount would be transferred from Unearned Franchise Fees to Revenue from Franchise Fees. Since these annual payments are not refundable, the Revenue from Franchise Fees might be recognized at the time the $20,000 is collected, but this may result in the mismatching of costs and revenues.

At the time that a franchise opens, only two steps remain before Amigos Burrito Inc. will have fully earned the entire franchise fee. First, it must provide expert advice over the five-year period.

*CA 18-10 (Continued)

Second, it must wait until the end of each of the next five years so that it may collect each of the $20,000 notes. Since collection has not been a problem, and since the advice may consist largely of manuals and periodical service tip flyers, it could be maintained that a substantial portion of the $75,816, the present value of the notes, should be recognized as revenue when a franchisee begins operations. Although there have been no defaults on the notes, the extent of Amigos Burrito Inc.'s experience may be so limited that there may in fact be a substantial collection problem in the future (as has been the actual experience of many franchisors in the recent past). At some time in the future, after Amigos Burrito Inc. has experienced a large number of franchises that have opened and operated for five years or more, it should be possible to develop probability measures so that the earned portion of the present value of the notes may be recognized as revenue at the time the franchise begins operations.

The monthly fee of 2% of sales should be recorded as revenue at the end of each month. This fee is for current services rendered and should be recognized as the services are performed.

(c) If the rental portion of the initial franchise fee, $20,000, represents the present value of monthly rentals over a ten-year period, it should be recorded as Unearned Lease Revenue to be recognized on an actuarially sound basis over the periods benefiting from the use of the leased assets. This type of transaction does not necessarily represent a sale of the equipment and immediate recognition of the entire rental as revenue may not be appropriate.

If the transaction could be considered to be a sale of equipment, the entire rental revenue of $20,000 should be recognized immediately upon delivery of the equipment.

Since credit risks are no problem, the conditions that must be met to justify recognizing a sales transaction are: (1) whether Amigos Burrito Inc. retains sizable risks of ownership, and (2) whether there are important uncertainties surrounding the amount of costs yet to be incurred. The fact that no portion of the rental is refundable does not warrant immediate recognition of the entire amount as revenue. The major questions are whether the equipment has a substantial residual value at the end of the ten years, whether the franchisee or Amigos Burrito Inc. gets the equipment free or for a nominal fee at the end of the ten years, and whether Amigos Burrito Inc. has responsibility for servicing, repairing, and maintaining the equipment during all or part of the ten-year period.

Because the data do not provide answers to these questions, a definite recommendation cannot be given to the preferable method of accounting for the "rental" portion of the initial franchise fee.

FINANCIAL REPORTING PROBLEM

(a) 2008 Revenues: £9,022 million.

(b) M&S's revenues increased from £8,588 million to £9,022 million from 2007 to 2008, or 5.1%. Revenues increased from £7,798 million to £8,588 million from 2006 to 2007, or 10.1%. Revenues increased from £7,728 million in 2006 to £9,022 million in 2008—a 16.7% increase.

(c) M&S's revenue comprises sales of goods to customers outside the company less an appropriate deduction for actual and expected returns, discounts and loyalty scheme voucher costs, and is stated net of Value Added Tax and other sales taxes. Sales of furniture and online sales are recorded on delivery to the customer.

(d) Revenues are recorded with a deduction for expected discounts and loyalty scheme vouchers. Thus, M&S, by establishing allowances for expected returns, is following accrual accounting principles.

COMPARATIVE ANALYSIS CASE

(a) For the year 2008, Cadbury reported net operating revenues of £5,384 million and Nestlé reported net revenue of CHF109,908 million.

Cadbury increased its revenues £685 million or 14.6% from 2007 to 2008 while Nestlé increased its revenue CHF2,356 million or 2.2% from 2007 to 2008.

(b) Yes, revenue recognition policies are similar because both companies recognize revenue when risks and rewards of ownership have transferred to the buyer. Cadbury also explains that it recognizes revenue when collection is reasonably assured and it allows for provision for returns based on historical experience.

(c) Two largest segments were BIMA (Britain, Ireland, Middle East, and Africa) and Americas. Overall, the company is very balanced globally, with over 1 billion pounds in revenue from each of its four main segments – BIMA, Americas, Europe, and Asia Pacific.

Two largest geographic segments were Zone Americas and Zone Europe. Of the 80 million CHF of sales attributed to the geographic areas, over 40% was from Zone Americas, over 35% was from Zone Europe, and over 20% was from Zone Asia, Oceania, and Africa.

FINANCIAL STATEMENT ANALYSIS CASE

BRITISH AIRWAYS

(a) British Airways (BA) primarily provides services; it recognizes passenger and cargo revenue when the transportation service is provided. Specifically, passenger tickets (net of discounts) are records as current liabilities in the sales in advance of carriage account until the fights occur. Other revenue is recognized at the time the service is provided. Commission costs are recognized at the same time as the revenue to which they relate and are charged to operating expenditure.

(b) BA's methods are entirely consistent with acceptable IFRS for the recognition and measurement of revenue. They measure revenue net of discounts and do not recognize revenue until the service is provided. This is the critical event—only when passengers fly on a BA flight is it is likely that that the economic benefits will flow to BA.

(c) In this disclosure, BA is describing its ticketing operation and the judgments involved to estimate revenue to be recognized on unused tickets. As indicated, ticket sales that are not expected to be used for transportation ('unused tickets') are recognized as revenue using estimates regarding the timing of recognition based on the terms and conditions of the ticket and historical trends. That is, BA estimates the percentage of unused tickets that will be used, based on its prior experience.

During the current year, changes in estimates regarding the timing of revenue recognition primarily for unused flexible tickets were made, resulting in increased revenue in the current year of £109 million. During the prior year, changes in estimates regarding the timing of revenue recognition for unused restricted tickets were made, resulting in increased revenue in the prior year of £36 million. Thus, it can reliably estimate these amounts, which is what is required under IFRS. BA indicates that accurate and timely data have been obtained through the increased use of electronic tickets.

ACCOUNTING, ANALYSIS, AND PRINCIPLES

ACCOUNTING

Revenues	$9,500,000
Expenses	7,750,000
	1,750,000
Gross profit on construction contract*	50,000
Commission revenue on consignment sales**	16,500
Net income	$1,816,500

*Gross profit on construction contract:
Total expected costs = (2 X $200,000) + $400,000 = $800,000
Costs incurred to date = (2 X $200,000) = $400,000
Percent complete = $400,000 ÷ $800,000 = 50%
Total expected gross profit = $1,000,000 – $800,000 = $200,000
Gross profit recognized to date = ($200,000 X 0.50) = $100,000
Gross profit previously recognized = $50,000
Gross profit recognized this year = $100,000 – $50,000 = $50,000

**Commission revenue on consignment sales = ($330,000 X 0.05) = $16,500

ANALYSIS

Net income	$1,816,500
Depreciation expense (non-cash expense)	175,000
Increase in working capital	(250,000)
Cash flow from operations	1,741,500
Capital expenditures	(500,000)
Dividends	(120,000)
Free cash flow	$1,121,500

PRINCIPLES

Both methods attempt to report revenues that faithfully represent the operations of the company so that future earnings and cash flows can be predicted (*relevance*). With percentage-of-completion, companies use subjective estimates (based on prior experience) of the percent completed to measure the amount of gross profit to recognize in the periods before completion. Thus, it would appear that relevance takes precedence in this case.

In contrast, with consignment sales, there is no reliable basis to determine collectibility of consignment sales. Therefore, consignees do not recognize revenue until the consigned goods are sold. This delay in recognition suggests that faithful representations carries the day in the case of consignment sales accounting.

PROFESSIONAL RESEARCH

(a) **IAS 18, paragraphs 15-19 addresses revenue recognition when right of return exists.**

(b) **"Right of return" is a term/condition allowing customers to return large amounts (a high ratio of returned merchandise to sales) of inventory.**

"Bill and hold" refers to sales that the buyer is not yet ready to take delivery but the buyer takes title and accepts billing.

(c) **When there is a right of return, revenue is recognized at the time of sale when the seller retains only an insignificant risk of ownership, and it can reliability estimate future returns.**

(d) **An entity does not recognise revenue if it retains significant risks of ownership. Examples of situations in which the entity may retain the significant risks and rewards of ownership are:**

1. **the entity retains an obligation for unsatisfactory performance not covered by normal warranties.**
2. **the receipt of the revenue from a particular sale is contingent on the buyer selling the goods.**
3. **the goods are shipped subject to installation and the installation is a significant part of the contract that has not yet been completed.**
4. **the buyer has the right to rescind the purchase for a reason specified in the sales contract, or at the buyer's sole discretion without any reason, and the entity is uncertain about the probability of return.**

(e) **The seller recognises revenue when the buyer takes title, provided:**

1. **it is probable that delivery will be made;**
2. **the item is on hand, identified and ready for delivery to the buyer at the time the sale is recognised;**
3. **the buyer specifically acknowledges the deferred delivery instructions; and**
4. **the usual payment terms apply.**

Revenue is not recognised when there is simply an intention to acquire or manufacture the goods in time for delivery.

PROFESSIONAL SIMULATION

Measurement

Computation of net income for 2011:

Revenues	$5,500,000
Expenses	4,200,000
	1,300,000
Gross profit on long-term contract	25,000*
Recognized profit on bill and hold sale	192,000**
Net income	$1,517,000

$$* \frac{\$100{,}000 + \$100{,}000}{\$100{,}000 + \$100{,}000 + \$200{,}000} = 50\%;\ 50\% \times (\$500{,}000 - \$400{,}000) = \$50{,}000$$

Less gross profit recognized in 2010	(25,000)
	$25,000

**$480,000 X 40% = $192,000

Journal Entries

Construction in Process	100,000	
Materials, Cash, Payables, etc.		100,000
Construction in Process (Gross Profit)*	25,000	
Construction Expenses	100,000	
Revenue from Long-Term Contracts		125,000***

*See above.
***(50% X $500,000) – $125,000

Financial Statements

NOMAR INDUSTRIES, INC.
Statement of Financial Position
12/31/2011

Current Assets

Inventories

Construction in process ($100,000 + $100,000 + $50,000)	$250,000	
Less: Billings	230,000	
Costs and recognized profits in excess of billings		$20,000

Accounts Receivable ($230,000 – $202,500)	**27,500**

Explanation

Given these facts, a more appropriate revenue recognition policy would be the cost-recovery method. Using the cost-recovery method, given the uncertainty of getting paid, gross profit is not recognized until all costs are incurred. This represents a more conservative policy in light of the uncertainty of realizability of the construction contracts.

CHAPTER 19

Accounting for Income Taxes

ASSIGNMENT CLASSIFICATION TABLE (BY TOPIC)

Topics	Questions	Brief Exercises	Exercises	Problems	Concepts for Analysis
1. Reconcile pretax financial income with taxable income.	1, 12	1	1, 2, 4, 7, 12, 18, 20, 21	1, 2, 3, 8	
2. Identify temporary and permanent differences.	3, 4, 5		4, 5, 6, 7	2, 3, 4	3, 4, 5
3. Determine deferred income taxes and related items—single tax rate.	6, 7, 12	2, 3, 4, 5, 6, 7, 9	1, 3, 4, 5, 7, 8, 12, 14, 15, 19, 21, 23, 25	3, 4, 8, 9	2
4. Classification of deferred taxes.	10, 11	15	7, 11, 16, 18, 19, 20, 21, 22	3, 6	2, 3, 5
5. Determine deferred income taxes and related items—multiple tax rates, expected future income.		10	2, 13, 16, 17, 18, 20, 22	1, 2, 6, 7	1, 6, 7
6. Determine deferred taxes, multiple rates, expected future losses.		10			
7. Carryback and carryforward of NOL.	15, 16, 17	12, 13, 14	9, 10, 23, 24, 25	5	
8. Change in enacted future tax rate.	13, 18, 19	11	16	2, 7	5, 6
9. Tracking temporary differences through reversal.			8, 17	2, 7	
10. Income statement presentation.	9	8	1, 2, 3, 4, 5, 7, 10, 12, 16, 19, 23, 24, 25	1, 2, 3, 5, 7, 8, 9	
11. Conceptual issues—tax allocation.	1, 2, 8, 18, 19		7		1, 2, 7
12. Non-recognition—deferred tax asset.	8	7	7, 14, 15, 23, 24, 25		
13. Disclosure and other issues.	14				

ASSIGNMENT CLASSIFICATION TABLE (BY LEARNING OBJECTIVE)

Learning Objectives	Brief Exercises	Exercises	Problems
1. Identify differences between pretax financial income and taxable income.	1, 2, 5		
2. Describe a temporary difference that results in future taxable amounts.	1, 2, 4, 9, 10	1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 16, 17, 18, 19, 20, 21, 22	1, 3, 4, 6, 7, 8, 9
3. Describe a temporary difference that results in future deductible amounts.	5, 6, 9	4, 5, 7, 8, 11, 12, 14, 15, 17, 18, 19, 20, 21, 22	1, 2, 4, 6, 8, 9
4. Explain the non-recognition of a deferred tax asset.	7, 14	7, 14, 15, 23, 24, 25	
5. Describe the presentation of income tax expense in the income statement.	4, 6, 8	1, 3, 4, 5, 8, 12, 15, 16	1, 2, 3, 4, 5, 7, 8, 9
6. Describe various temporary and permanent differences.		4, 6, 7	2, 3, 9
7. Explain the effect of various tax rates and tax rate changes on deferred income taxes.	11	13, 16, 17, 18, 21, 23, 24, 25	5, 7
8. Apply accounting procedures for a loss carryback and a loss carryforward.	12, 13, 14	9, 10, 23, 24, 25	5
9. Describe the presentation of income taxes in financial statements.	3, 15	8, 11, 16, 19, 20, 21, 22	3, 5, 6, 8, 9

ASSIGNMENT CHARACTERISTICS TABLE

Item	Description	Level of Difficulty	Time (minutes)
E19-1	One temporary difference, future taxable amounts, one rate, no beginning deferred taxes.	Simple	15–20
E19-2	Two differences, no beginning deferred taxes, tracked through 2 years.	Simple	15–20
E19-3	One temporary difference, future taxable amounts, one rate, beginning deferred taxes.	Simple	15–20
E19-4	Three differences, compute taxable income, entry for taxes.	Simple	15–20
E19-5	Two temporary differences, one rate, beginning deferred taxes.	Simple	15–20
E19-6	Identify temporary or permanent differences.	Simple	10–15
E19-7	Terminology, relationships, computations, entries.	Simple	10–15
E19-8	Two temporary differences, one rate, 3 years.	Simple	10–15
E19-9	Carryback and carryforward of NOL, no temporary differences.	Simple	15–20
E19-10	Two NOLs, no temporary differences, entries and income statement.	Moderate	20–25
E19-11	Three differences, classify deferred taxes.	Simple	10–15
E19-12	Two temporary differences, one rate, beginning deferred taxes, compute pretax financial income.	Complex	20–25
E19-13	One difference, multiple rates, effect of beginning balance versus no beginning deferred taxes.	Simple	20–25
E19-14	Deferred tax asset.	Moderate	20–25
E19-15	Deferred tax asset.	Complex	20–25
E19-16	Deferred tax liability, change in tax rate, prepare section of income statement.	Complex	15–20
E19-17	Two temporary differences, tracked through 3 years, multiple rates.	Moderate	30–35
E19-18	Three differences, multiple rates, future taxable income.	Moderate	20–25
E19-19	Two differences, one rate, beginning deferred balance, compute pretax financial income.	Complex	25–30
E19-20	Two differences, no beginning deferred taxes, multiple rates.	Moderate	15–20
E19-21	Two temporary differences, multiple rates, future taxable income.	Moderate	20–25
E19-22	Two differences, one rate, first year.	Simple	15–20
E19-23	NOL carryback and carryforward, recognition versus non-recognition.	Complex	30–35
E19-24	NOL carryback and carryforward, non-recognition.	Complex	30–35
E19-25	NOL carryback and carryforward, non-recognition.	Moderate	15–20

ASSIGNMENT CHARACTERISTICS TABLE (Continued)

Item	Description	Level of Difficulty	Time (minutes)
P19-1	Three differences, no beginning deferred taxes, multiple rates.	Complex	40–45
P19-2	One temporary difference, tracked for 4 years, one permanent difference, change in rate.	Complex	50–60
P19-3	Second year of depreciation difference, two differences, single rate.	Complex	40–45
P19-4	Permanent and temporary differences, one rate.	Moderate	20–25
P19-5	Recognition of NOL.	Simple	20–25
P19-6	Two differences, two rates, future income expected.	Moderate	20–25
P19-7	One temporary difference, tracked 3 years, change in rates, income statement presentation.	Complex	45–50
P19-8	Two differences, 2 years, compute taxable income and pretax financial income.	Complex	40–50
P19-9	Five differences, compute taxable income and deferred taxes, draft income statement.	Complex	40–50
CA19-1	Objectives and principles for accounting for income taxes.	Simple	15–20
CA19-2	Basic accounting for temporary differences.	Moderate	20–25
CA19-3	Identify temporary differences and classification criteria.	Complex	20–25
CA19-4	Accounting for deferred income taxes.	Moderate	20–25
CA19-5	Explain computation of deferred tax liability for multiple tax rates.	Complex	20–25
CA19-6	Explain future taxable and deductible amounts, how carryback and carryforward affects deferred taxes.	Complex	20–25
CA19-7	Deferred taxes, income effects.	Moderate	20–25

ANSWERS TO QUESTIONS

1. Pretax financial income is reported on the income statement and is often referred to as income before income taxes. Taxable income is reported on the tax return and is the amount upon which a company's income tax payable is computed.

2. One objective of accounting for income taxes is to recognize the amount of taxes payable or refundable for the current year. A second is to recognize deferred tax liabilities and assets for the future tax consequences of events that have already been recognized in the financial statements or tax returns.

3. A permanent difference is a difference between taxable income and pretax financial income that, under existing applicable tax laws and regulations, will not be offset by corresponding differences or "turn around" in other periods. Therefore, a permanent difference is caused by an item that: (1) is included in pretax financial income but never in taxable income, or (2) is included in taxable income but never in pretax financial income.

Examples of permanent differences are: (1) interest received on certain types of government obligations (such interest is included in pretax financial income but is not included in taxable income), (2) charitable donations recognized as expense, but sometimes not deductible for tax purposes and (3) fines and expenses resulting from a violation of law. Item (3) is an expense which is not deductible for tax purposes.

4. A temporary difference is a difference between the tax basis of an asset or liability and its reported (carrying or book) amount in the financial statements that will result in taxable amounts or deductible amounts in future years when the reported amount of the asset is recovered or when the reported amount of the liability is settled. The temporary differences discussed in this chapter all result from differences between taxable income and pretax financial income which will reverse and result in taxable or deductible amounts in future periods.

Examples of temporary differences are: (1) Sales accounted for on the accrual basis for financial reporting purposes and on the installment (cash) basis for tax purposes. (2) Depreciation for financial reporting purposes is less than that deducted in tax returns in early years of assets' lives because of using an accelerated depreciation method for tax purposes. (3) Rent and royalties taxed when collected, but deferred for financial reporting purposes and recognized as revenue when earned in later periods. (4) Unrealized holding gains or losses recognized in income for financial reporting purposes but deferred for tax purposes.

5. An originating temporary difference is the initial difference between the book basis and the tax basis of an asset or liability. A reversing difference occurs when a temporary difference that originated in prior periods is eliminated and the related tax effect is removed from the tax account.

6.

Book basis of assets	€900,000
Tax basis of assets	700,000
Future taxable amounts	200,000
Tax rate	X 34%
Deferred tax liability (end of 2011)	€ 68,000

7.

Book basis of asset	$90,000	Deferred tax liability (end of 2011)	$ 30,600
Tax basis of asset	0	Deferred tax liability (beginning of 2011)	68,000
Future taxable amounts	90,000	Deferred tax benefit for 2011	(37,400)
Tax rate	X 34%	Income tax payable for 2011	230,000
Deferred tax liability (end of 2011)	$30,600	Total income tax expense for 2011	$192,600

8. A future taxable amount will increase taxable income relative to pretax financial income in future periods due to temporary differences existing at the statement of financial position date. A future deductible amount will decrease taxable income relative to pretax financial income in future periods due to existing temporary differences.

A deferred tax asset is recognized for all deductible temporary differences. However, a deferred tax asset should be reduced if, based on all available evidence, it is probable that some portion or all of the deferred tax asset will not be realized.

9.

Taxable income	$100,000	Future taxable amounts	$70,000
Tax rate	X 40%	Tax rate	40%
Income tax payable	$ 40,000	Deferred tax liability (end of 2011)	$28,000
Deferred tax liability (end of 2011)	$ 28,000	Current tax expense	$40,000
Deferred tax liability (beginning of 2011)	0	Deferred tax expense	28,000
Deferred tax expense for 2011	$ 28,000	Income tax expense for 2011	$68,000

10. Deferred tax accounts are reported on the statement of financial position as assets and liabilities. They should be classified in a net non-current amount.

11. Deferred tax assets and deferred tax liabilities are separately recognized and measured but are offset in the statement of financial position. The net deferred tax asset or net deferred tax liability is reported in the non-current section of the statement of financial position.

12.

Pretax financial income	$550,000
Interest income on governmental bonds	(70,000)
Hazardous waste fine	25,000
Depreciation ($60,000 – $45,000)	15,000
Taxable income	520,000
Tax rate	30%
Income tax payable	$156,000

13.

£200,000	(2013 taxable amount)
X 10%	(30% – 20%)
£ 20,000	Decrease in deferred tax liability at the end of 2010

Deferred Tax Liability	20,000	
Income Tax Expense		20,000

14. Some of the reasons for requiring income tax component disclosures are:

(a) Assessment of the quality of earnings. Many investors seeking to assess the quality of a company's earnings are interested in the relation of pre-tax financial income and taxable income. Earnings that are enhanced by a favorable tax effect should be examined carefully, particularly if the tax effect is non-recurring.

(b) Better prediction of future cash flows. Examination of the deferred portion of income tax expense provides information as to whether taxes payable are likely to be higher or lower in the future.

15. The loss carryback provision permits a company to carry a net operating loss back two years and receive refunds for income taxes paid in those years. The loss must be applied to the second preceding year first and then to the preceding year.

The loss carryforward provision permits a company to carry forward a net operating loss twenty years, offsetting future taxable income. The loss carryback can be accounted for with more certainty because the company knows whether it had taxable income in the past; such is not the case with income in the future.

16. The company may choose to carry the net operating loss forward, or carry it back and then forward for tax purposes. To forego the two-year carryback might be advantageous where a taxpayer had tax credit carryovers that might be wiped out and lost because of the carryback of the net operating loss. In addition, tax rates in the future might be higher, and therefore on a present value basis, it is advantageous to carry forward rather than carry back.

For financial reporting purposes, the benefits of a net operating loss carryback are recognized in the loss year. The benefits of an operating loss carryforward are recognized as a deferred tax asset in the loss year. If it is probable that the asset will be realized, the tax benefit of the loss is also recognized by a credit to Income Tax Expense on the income statement. Conversely, if it is probable that the loss carryforward will not be realized in future years, then no tax benefit is recognized on the income statement of the loss year.

17. Many believe that future deductible amounts arising from net operating loss carryforwards are different from future deductible amounts arising from normal operations. One rationale provided is that a deferred tax asset arising from normal operations results in a tax prepayment—a prepaid tax asset. In the case of loss carryforwards, no tax prepayment has been made.

Others argue that realization of a loss carryforward is less likely—and thus should require a more severe test—than for a net deductible amount arising from normal operations. Some have suggested that because of the nature of net operating losses, deferred tax assets should never be established for these items.

18. Both IFRS and U.S. GAAP use the asset and liability approach for recording deferred tax assets. In general, the differences between IFRS and U.S. GAAP involve limited differences in the exceptions to the asset-liability approach, some minor differences in the recognition, measurement and disclosure criteria, and differences in implementation guidance. Following are some key elements for comparison.

- Under IFRS, an affirmative judgment approach is used by which a deferred tax asset is recognized up to the amount that is probable to be realized. U.S. GAAP uses an impairment approach. In this situation, the deferred tax asset is recognized in full. It is then reduced by a valuation account if it is more likely than not that all or a portion of the deferred tax asset will not be realized.
- IFRS uses the enacted tax rate or substantially enacted tax rate (Substantially enacted means virtually certain). For U.S. GAAP the enacted tax rate must be used.
- The tax effects related to certain items are reported in equity under IFRS. That is not the case under U.S. GAAP, which charges or credits the tax effects to income.
- U.S. GAAP requires companies to assess the likelihood of uncertain tax positions being sustainable upon audit. Potential liabilities must be accrued and disclosed if the position is “more likely than not” to be disallowed. Under IFRS, all potential liabilities must be recognized. With respect to measurement, IFRS uses an expected value approach to measure the tax liability which differs from U.S. GAAP.
- The classification of deferred taxes under IFRS is always non-current. U.S. GAAP classifies deferred taxes based on the classification of the asset or liability to which it relates.

19. The IASB and the FASB have been working to address some of the differences in the accounting for income taxes. Some of the issues under discussion are the term "probable" under IFRS for recognition of a deferred tax asset, which might be interpreted to mean "more likely than not". If changed, the reporting for impairments of deferred tax assets will be essentially the same between U.S. GAAP and IFRS. In addition, the IASB is considering adoption of the classification approach used in U.S. GAAP for deferred tax assets and liabilities. Also, U.S. GAAP will likely continue to use the enacted tax rate in computing deferred taxes, except in situations where the U.S. taxing jurisdiction is not involved. In that case, companies should use IFRS which is based on enacted rates or substantially enacted tax rates. Finally, the issue of allocation of deferred income taxes to equity for certain transactions under IFRS must be addressed in order to achieve convergence. At the time of this printing, deliberations on the Income Tax project have been suspended indefinitely.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 19-1

2010 taxable income	**$120,000**
Tax rate	**X 40%**
12/31/10 income taxes payable	**$ 48,000**

BRIEF EXERCISE 19-2

Excess depreciation on tax return	**€40,000**
Tax rate	**X 30%**
Deferred tax liability	**€12,000**

BRIEF EXERCISE 19-3

Income Tax Expense	**67,500***	
Deferred Tax Liability		**12,000****
Income Tax Payable		**55,500***

***€185,000 x 30% = €55,500**
****€40,000 x 30% = €12,000**
*****€55,500 + $12,000 = €67,500**

The €12,000 deferred tax liability should be classified as a non-current liability.

BRIEF EXERCISE 19-4

Deferred tax liability, 12/31/11	**$42,000**
Deferred tax liability, 12/31/10	**(25,000)**
Deferred tax expense for 2011	**17,000**
Current tax expense for 2011	**48,000**
Total tax expense for 2011	**$65,000**

BRIEF EXERCISE 19-5

Book value of warranty liability	**£105,000**
Tax basis of warranty liability	**0**
Cumulative temporary difference at 12/31/10	**105,000**
Tax rate	**X 40%**
12/31/10 deferred tax asset	**£ 42,000**

BRIEF EXERCISE 19-6

Deferred tax asset, 12/31/11	**$59,000**
Deferred tax asset, 12/31/10	**30,000**
Deferred tax benefit for 2011	**(29,000)**
Current tax expense for 2011	**61,000**
Total tax expense for 2011	**$32,000**

BRIEF EXERCISE 19-7

Income Tax Expense	**60,000**	
Deferred Tax Asset		**60,000**

BRIEF EXERCISE 19-8

Income before income taxes		**$195,000**
Income tax expense		
Current	**$48,000**	
Deferred	**30,000**	**78,000**
Net income		**$117,000**

BRIEF EXERCISE 19-9

Income Tax Expense	**71,100**	
Income Tax Payable ($148,000* X 45%)		**66,600**
Deferred Tax Liability ($10,000 X 45%)		**4,500**

***$154,000 + $4,000 – $10,000 = $148,000**

BRIEF EXERCISE 19-10

Year	Future taxable amount	X	Tax Rate	=	Deferred tax liability
2011	$ 42,000		34%		$ 14,280
2012	244,000		34%		82,960
2013	294,000		40%		117,600
					$214,840

BRIEF EXERCISE 19-11

Income Tax Expense	120,000,000	
Deferred Tax Liability (¥2,000,000,000 X 6%)		120,000,000

BRIEF EXERCISE 19-12

Income Tax Refund Receivable..............................	144,000	
Benefit Due to Loss Carryback $97,500 + [($480,000–$325,000) X 30%]		144,000

BRIEF EXERCISE 19-13

Income Tax Refund Receivable (€350,000 X .40)...	140,000	
Benefit Due to Loss Carryback		140,000
Deferred Tax Asset (€500,000 – €350,000) X .40	60,000	
Benefit Due to Loss Carryforward		60,000

BRIEF EXERCISE 19-14

Income Tax Refund Receivable (€350,000 X .40)...	140,000	
Benefit Due to Loss Carryback		140,000

BRIEF EXERCISE 19-15

Non-current liabilities		
Deferred tax liability ($69,000 – $24,000)........		$45,000

SOLUTIONS TO EXERCISES

EXERCISE 19-1 (15–20 minutes)

(a)

Pretax financial income for 2010	$400,000
Temporary difference resulting in future taxable	
amounts in 2011	(55,000)
in 2012	(60,000)
in 2013	(75,000)
Taxable income for 2010	$210,000

Taxable income for 2010	$210,000
Enacted tax rate	X 30%
Income tax payable for 2010	$ 63,000

(b)

	Future Years			
	2011	2012	2013	Total
Future taxable (deductible) amounts	$55,000	$60,000	$75,000	$190,000
Tax rate	X 30%	X 30%	X 30%	
Deferred tax liability (asset)	$16,500	$18,000	$22,500	$ 57,000

Deferred tax liability at the end of 2010	$ 57,000
Deferred tax liability at the beginning of 2010	0
Deferred tax expense for 2010 (increase in deferred tax liability)	57,000
Current tax expense for 2010 (Income tax payable)	63,000
Income tax expense for 2010	$120,000

Income Tax Expense	120,000	
Income Tax Payable		63,000
Deferred Tax Liability		57,000

(c)

Income before income taxes		$400,000
Income tax expense		
Current	$63,000	
Deferred	57,000	120,000
Net income		$280,000

Note: The current/deferred tax expense detail can be presented in the notes to the financial statements.

EXERCISE 19-2 (15–20 minutes)

(a)	Pretax financial income for 2010		£350,000
	Excess of tax depreciation over book depreciation		(40,000)
	Rent received in advance		25,000
	Taxable income		£335,000

(b)	Income Tax Expense	140,000	
	Deferred Tax Asset	10,000*	
	Income Tax Payable (£335,000 X .40)		134,000
	Deferred Tax Liability		16,000**

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax (Asset)	Deferred Tax Liability
**Depreciation	£40,000	40%		£16,000
*Unearned rent	(25,000)	40%	£(10,000)	
			£(10,000)	£16,000

(c)	Income Tax Expense	136,000*	
	Deferred Tax Liability (£10,000 X .40)	4,000	
	Income Tax Payable (£325,000 X .40)		130,000
	Deferred Tax Asset (£25,000 X .40)		10,000

*(£130,000 – £4,000 + £10,000)

EXERCISE 19-3 (15–20 minutes)

(a)	Taxable income for 2010	$400,000
	Enacted tax rate	X 40%
	Income tax payable for 2010	$160,000

(b)

	Future Years 2011	Future Years 2012	Total
Future taxable (deductible) amounts	$175,000	$175,000	$350,000
Tax rate	X 40%	X 40%	
Deferred tax liability (asset)	$ 70,000	$ 70,000	$140,000

EXERCISE 19-3 (Continued)

Deferred tax liability at the end of 2010		$140,000
Deferred tax liability at the beginning of 2010		90,000
Deferred tax expense for 2010 (increase required in deferred tax liability)		50,000
Current tax expense for 2010		160,000
Income tax expense for 2010		$210,000

Income Tax Expense	210,000	
Income Tax Payable		160,000
Deferred Tax Liability		50,000

(c)

Income before income taxes		$525,000
Income tax expense		
Current	$160,000	
Deferred	50,000	210,000
Net income		$315,000

Note to instructor: Because of the flat tax rate for all years, the amount of cumulative temporary difference existing at the beginning of the year can be calculated by dividing $90,000 by 40%, which equals $225,000. The difference between the $225,000 cumulative temporary difference at the beginning of 2010 and the $350,000 cumulative temporary difference at the end of 2010 represents the net amount of temporary difference originating during 2010 (which is $125,000). With this information, we can reconcile pretax financial income with taxable income as follows:

Pretax financial income	$525,000
Temporary difference originating giving rise to net future taxable amounts	(125,000)
Taxable income	$400,000

EXERCISE 19-4 (15–20 minutes)

(a)

Pretax financial income for 2010	€ 80,000
Excess depreciation per tax return	(16,000)
Excess rent collected over rent earned	27,000
Nondeductible fines	11,000
Taxable income	€102,000

Taxable income	€102,000
Enacted tax rate	X 30%
Income tax payable	€ 30,600

EXERCISE 19-4 (Continued)

(b)

Income Tax Expense	27,300	
Deferred Tax Asset	8,100	
Income Tax Payable		30,600
Deferred Tax Liability		4,800

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax (Asset)	Deferred Tax Liability
Depreciation	€ 16,000	30%		€4,800
Unearned rent	(27,000)	30%	€(8,100)	
Totals	€(11,000)		€(8,100)	€4,800*

*Because of a flat tax rate, these totals can be reconciled: €(11,000) X 30% = €(8,100) + €4,800.

Deferred tax liability at the end of 2010	€ 4,800
Deferred tax liability at the beginning of 2010	0
Deferred tax expense for 2010 (increase required in deferred tax liability)	€ 4,800

Deferred tax asset at the end of 2010	€ 8,100
Deferred tax asset at the beginning of 2010	0
Deferred tax benefit for 2010 (increase required in deferred tax asset)	€ (8,100)

Deferred tax expense for 2010	€ 4,800
Deferred tax benefit for 2010	(8,100)
Net deferred tax benefit for 2010	(3,300)
Current tax expense for 2010 (Income tax payable)	30,600
Income tax expense for 2010	€27,300

(c)

Income before income taxes		€80,000
Income tax expense		
Current	€30,600	
Deferred	(3,300)	27,300
Net income		€52,700

<u>Note</u>: The details on the current/deferred tax expense may be presented in a note to the financial statements.

(d) $\frac{€27,300}{€80,000}$ = 34.1% effective tax rate for 2010.

EXERCISE 19-5 (15–20 minutes)

(a)	Taxable income		$115,000
	Enacted tax rate		X 40%
	Income tax payable		$ 46,000

(b)	Income Tax Expense...	80,000	
	Deferred Tax Asset	14,000	
	Income Tax Payable		46,000
	Deferred Tax Liability		48,000

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax (Asset)	Deferred Tax Liability
Item one	$220,000	40%		$88,000
Item two	(35,000)	40%	$(14,000)	
Totals	$185,000		$(14,000)	$88,000

*Because of a flat tax rate, these totals can be reconciled: $185,000 X 40% = $(14,000) + $88,000.

Deferred tax liability at the end of 2010................................	$ 88,000
Deferred tax liability at the beginning of 2010.....................	(40,000)
Deferred tax expense for 2010 (increase required in deferred tax liability)......................................	$ 48,000

Deferred tax asset at the end of 2010..................................	$ 14,000
Deferred tax asset at the beginning of 2010	0
Deferred tax benefit for 2010 (increase required in deferred tax asset)..	$ (14,000)

Deferred tax expense for 2010	$ 48,000
Deferred tax benefit for 2010...	(14,000)
Net deferred expense for 2010	34,000
Current tax expense for 2010 (Income tax payable)	46,000
Income tax expense for 2010	$ 80,000

(c)	Income before income taxes		$200,000
	Income tax expense		
	Current...	$46,000	
	Deferred...	34,000	80,000
	Net income		$120,000

Note: The details on the current/deferred tax expense can be disclosed in the notes to the financial statements.

EXERCISE 19-5 (Continued)

Note to instructor: Because of the flat tax rate for all years, the amount of cumulative temporary difference existing at the beginning of the year can be calculated by dividing the $40,000 balance in Deferred Tax Liability by 40%, which equals $100,000. This information may now be combined with the other facts given in the exercise to reconcile pretax financial income with taxable income as follows:

Pretax financial income	$200,000
Net originating temporary difference giving rise to future taxable amounts ($220,000 – $100,000)	(120,000)
Originating temporary difference giving rise to future deductible amounts	35,000
Taxable income	$115,000

EXERCISE 19-6 (10–15 minutes)

(a)	(2)	(e)	(2)	(i)	(1)
(b)	(1)	(f)	(3)	(j)	(1)
(c)	(3)	(g)	(2)		
(d)	(1)	(h)	(3)*		

***When the cost method is used for financial reporting purposes, the dividends are recognized in the income statement in the period they are received, which is the same period they must be reported on the tax return. However, depending on the level of ownership by the investor, 70% or 80% of the dividends received from other U.S. corporations may be excluded from taxation because of a "dividends received deduction." These tax-exempt dividends create a permanent difference.**

EXERCISE 19-7 (10–15 minutes)

(a) greater than
(b) $170,000 = ($68,000 divided by 40%)
(c) are not
(d) less than
(e) benefit; $15,000
(f) $5,500 = [($105,000 X 40%) – $36,500]
(g) debit
(h) $59,000 = ($82,000 – $23,000)
(i) probable; will not be
(j) benefit

EXERCISE 19-8 (10–15 minutes)

(a) **2010**

Income Tax Expense	336,000,000	
Deferred Tax Asset (₩20,000,000 X 40%)	8,000,000	
Deferred Tax Liability (₩30,000,000 X 40%)		12,000,000
Income Tax Payable (₩830,000,000 X 40%)		332,000,000

2011

Income Tax Expense	364,000,000	
Deferred Tax Asset (₩10,000,000 X 40%)	4,000,000	
Deferred Tax Liability (₩40,000,000 X 40%)		16,000,000
Income Tax Payable (₩880,000,000 X 40%)		352,000,000

2012

Income Tax Expense	378,000,000	
Deferred Tax Asset (₩8,000,000 X 40%)	3,200,000	
Deferred Tax Liability (₩20,000,000 X 40%)		8,000,000
Income Tax Payable (₩933,000,000 X 40%)		373,200,000

(b) Non-current liabilities

Deferred tax liability (₩36,000,000 – ₩15,200,000	₩ 20,800,000

(c)

Pretax financial income		₩945,000,000
Income tax expense		
Current	₩373,200,000	
Deferred (₩8,000,000 – ₩3,200,000)	4,800,000	378,000,000
Net Income		₩567,000,000

Note: The details on the current/deferred tax expense can be disclosed in the notes to the financial statements.

EXERCISE 19-9 (15–20 minutes)

2008		
Income Tax Expense	36,000	
Income Tax Payable ($90,000 X 40%)		36,000
2009		
Income Tax Refund Receivable ($160,000 X 45%)	72,000	
Benefit Due to Loss Carryback (Income Tax Expense)		72,000
2010		
Income Tax Refund Receivable	36,000	
Benefit Due to Loss Carryback (Income Tax Expense) ($90,000 X 40%)		36,000
Deferred Tax Asset	104,000	
Benefit Due to Loss Carryforward (Income Tax Expense) [40% X ($350,000 – $90,000)]		104,000
2011		
Income Tax Expense	48,000	
Deferred Tax Asset (40% X $120,000)		48,000
2012		
Income Tax Expense	40,000	
Deferred Tax Asset ($100,000 X 40%)		40,000

Note: Benefit Due to Loss Carryback and Benefit Due to Loss Carryforward amounts are negative components of income tax expense.

EXERCISE 19-10 (20–25 minutes)

(a)	**Income Tax Refund Receivable**		
	[(€22,000 X 35%) + (€48,000 X 50%)]	**31,700**	
	Benefit Due to Loss Carryback		**31,700**
	Deferred Tax Asset	**32,000**	
	Benefit Due to Loss Carryforward		**32,000**
	(€150,000 – €22,000 – €48,000 = €80,000)		
	(€80,000 X 40% = €32,000)		
(b)	**Operating loss before income taxes**		**€(150,000)**
	Income tax benefit		
	Benefit due to loss carryback	**€31,700**	
	Benefit due to loss carryforward	**32,000**	**63,700**
	Net loss		**€ (86,300)**
(c)	**Income Tax Expense**	**36,000**	
	Deferred Tax Asset		**32,000**
	Income Tax Payable		
	[40% X (€90,000 – €80,000)]		**4,000**
(d)	**Income before income taxes**		**€ 90,000**
	Income tax expense		
	Current	**€ 4,000**	
	Deferred	**32,000**	**36,000**
	Net income		**€ 54,000**
(e)	**Income Tax Refund Receivable**		
	(€50,000 X 40%)	**20,000**	
	Benefit Due to Loss Carryback		**20,000**
(f)	**Operating loss before income taxes**		**€ (50,000)**
	Income tax benefit		
	Benefit due to loss carryback		**20,000**
	Net loss		**€ (30,000)**

EXERCISE 19-11 (10–15 minutes)

Temporary Difference	Resulting Deferred Tax (Asset)	Liability
Depreciation		$200,000
Lawsuit obligation	$(50,000)	
Installment sale		300,000
Totals	$(50,000)	$500,000

Non-current liabilities

Deferred tax liability ($500,000 – $50,000)	450,000

EXERCISE 19-12 (20–25 minutes)

(a) To complete a reconciliation of pretax financial income and taxable income, solving for the amount of pretax financial income, we must first determine the amount of temporary differences arising or reversing during the year. To accomplish that, we must determine the amount of cumulative temporary differences underlying the beginning balances of the deferred tax liability of $60,000 and the deferred tax asset of $20,000.

$60,000 ÷ 40% = $150,000 beginning cumulative temporary difference.
$20,000 ÷ 40% = $ 50,000 beginning cumulative temporary difference.

Cumulative temporary difference at 12/31/10 which will result in future taxable amounts	$210,000
Cumulative temporary difference at 1/1/10 which will result in future taxable amounts	(150,000)
Originating difference in 2010 which will result in future taxable amounts	$ 60,000

Cumulative temporary difference at 12/31/10 which will result in future deductible amounts................	$ 95,000
Cumulative temporary difference at 1/1/10 which will result in future deductible amounts................	(50,000)
Originating difference in 2010 which will result in future deductible amounts.................................	$ 45,000

EXERCISE 19-12 (Continued)

Pretax financial income	$ X
Originating difference which will result in future taxable amounts	(60,000)
Originating difference which will result in future deductible amounts	45,000
Taxable income for 2010	$115,000

Solving for pretax financial income:
X – $60,000 + $45,000 = $115,000
X = $130,000 = Pretax financial income

(b)

Income Tax Expense...	52,000	
Deferred Tax Asset	18,000	
Income Tax Payable ($115,000 X 40%)		46,000
Deferred Tax Liability		24,000

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax (Asset)	Deferred Tax Liability
Item one	$210,000	40%		$84,000
Item two	(95,000)	40%	$(38,000)	
Totals	$115,000		$(38,000)	$84,000*

*Because of a flat tax rate, these totals can now be reconciled: $115,000 X 40% = $(38,000) + $84,000.

Deferred tax liability at the end of 2010...............................	$ 84,000
Deferred tax liability at the beginning of 2010.....................	(60,000)
Deferred tax expense for 2010 (net increase required in deferred tax liability).....................................	$ 24,000

Deferred tax asset at the end of 2010..................................	$ 38,000
Deferred tax asset at the beginning of 2010	20,000
Deferred tax benefit for 2010 (net increase required in deferred tax asset)...	$ (18,000)

Deferred tax expense for 2010	$ 24,000
Deferred tax benefit for 2010..	(18,000)
Net deferred tax expense (benefit) for 2010.........................	6,000
Current tax expense for 2010 (Income tax payable)	46,000
Income tax expense for 2010	$ 52,000

EXERCISE 19-12 (Continued)

(c)

Income before income taxes		$130,000
Income tax expense		
Current	$46,000	
Deferred	6,000	52,000
Net income		$ 78,000

(d) Because of the same tax rate for all years involved and no permanent differences, the effective rate should equal the statutory rate. The following calculation proves that it does: $52,000 ÷ $130,000 = 40% effective tax rate for 2010.

EXERCISE 19-13 (20–25 minutes)

(a)

Income Tax Expense	187,000	
Income Tax Payable		136,000
Deferred Tax Liability		51,000

Taxable income for 2010	€340,000
Enacted tax rate	X 40%
Income tax payable for 2010	€136,000

	Future Years				
	2011	2012	2013	2014	Total
Future taxable (deductible) amounts	€70,000	€50,000	€40,000	€20,000	€180,000
Enacted tax rate	X 30%	X 30%	X 25%	X 25%	
Deferred tax liability (asset)	€21,000	€15,000	€10,000	€ 5,000	€ 51,000

Deferred tax liability at the end of 2010	€ 51,000
Deferred tax liability at the beginning of 2010	0
Deferred tax expense for 2010 (net increase required in deferred tax liability)	51,000
Current tax expense for 2010	136,000
Income tax expense for 2010	€187,000

EXERCISE 19-13 (Continued)

(b)	Income Tax Expense	165,000	
	Income Tax Payable		136,000
	Deferred Tax Liability		29,000

The Income Tax Payable for 2010 of €136,000 and the €51,000 balance for Deferred Tax Liability at December 31, 2010, would be computed the same as they were for part (a) of this exercise. The resulting change in the deferred tax liability and total income tax expense would be computed as follows:

Deferred tax liability at the end of 2010	€ 51,000
Deferred tax liability at the beginning of 2010	(22,000)
Deferred tax expense for 2010 (net increase required in deferred tax liability)	29,000
Current tax expense for 2010 (Income tax payable)	136,000
Income tax expense for 2010	€165,000

EXERCISE 19-14 (20–25 minutes)

(a)	Income Tax Expense	290,000	
	Deferred Tax Asset	50,000	
	Income Tax Payable		340,000

Taxable income	$850,000
Enacted tax rate	X 40%
Income tax payable	$340,000

Date	Cumulative Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax (Asset)	Deferred Tax Liability
12/31/11	$(500,000)	40%	$(200,000)	

Deferred tax asset at the end of 2011	$200,000
Deferred tax asset at the beginning of 2011	150,000
Deferred tax benefit for 2011 (increase in deferred tax asset)	(50,000)
Current tax expense for 2011 (Income tax payable)	340,000
Income tax expense for 2011	$290,000

EXERCISE 19-14 (Continued)

(b) The journal entry at the end of 2011:

Income Tax Expense	30,000	
Deferred Tax Asset		30,000

<u>Note to instructor</u>: Although not requested by the instructions, the pretax financial income can be computed by completing the following reconciliation:

Pretax financial income for 2011	$ X
Originating difference which will result in future deductible amounts	125,000[a]
Taxable income for 2011	$850,000

Solving for pretax financial income:
X + $125,000 = $850,000
X = $725,000 = Pretax financial income

[a]$500,000 – $375,000 = $125,000

EXERCISE 19-15 (20–25 minutes)

(a)	Income Tax Expense	290,000	
	Deferred Tax Asset	50,000	
	Income Tax Payable......................................		340,000
	Income Tax Expense	180,000	
	Deferred Tax Asset ($200,000 – $20,000)......		180,000
(b)	Income Tax Expense	290,000	
	Deferred Tax Asset	50,000	
	Income Tax Payable......................................		340,000
	Income Tax Expense	200,000	
	Deferred Tax Asset		200,000

EXERCISE 19-16 (15–20 minutes)

(a)

	Future Years		
	2011	2012	Total
Future taxable (deductible) amounts	$1,000,000	$1,000,000	$2,000,000
Tax rate	X 40%*	X 34%	
Deferred tax liability (asset)	$ 400,000	$ 340,000	$ 740,000

*The prior tax rate of 40% is computed by dividing the $800,000 balance of the deferred tax liability account at January 1, 2010, by the $2,000,000 cumulative temporary difference at that same date.

The deferred tax liability balance of $740,000 is reported as a non-current liability on the 2010 statement of financial position.

(b)

Deferred Tax Liability	60,000	
Income Tax Expense		60,000

There are no changes during 2010 in the cumulative temporary difference. The entire change in the deferred tax liability account is due to the change in the enacted tax rate. That change is computed as follows:

Deferred tax liability at the end of 2010 (computed in (a))	$ 740,000
Deferred tax liability at the beginning of 2010	(800,000)
Deferred tax benefit for 2010 due to change in enacted tax rate (decrease in deferred tax liability required)	$ (60,000)

(c)

Income before income taxes		$5,000,000*
Income tax expense		
Current	$2,000,000**	
Adjustment due to change in tax rate	(60,000)	1,940,000
Net income		$3,060,000

*Pretax financial income is equal to the taxable income for 2010 because there were no changes in the cumulative temporary difference and no permanent differences.

EXERCISE 19-16 (Continued)

**Taxable income for 2010	$5,000,000
Tax rate for 2010 (computed in (a))	X 40%
Current tax expense.....................................	$2,000,000

Current tax expense for 2010 would also need to be recorded. The entry would be a debit to Income Tax Expense and a credit to Income Tax Payable for $2,000,000.

EXERCISE 19-17 (30–35 minutes)

Journal entry at December 31, 2010:

Income Tax Expense	75,750	
Deferred Tax Asset	4,000	
Income Tax Payable		73,350
Deferred Tax Liability		6,400

Taxable income for 2010	$163,000
Enacted tax rate	45%
Income tax payable for 2010	$ 73,350

The deferred tax account balances at December 31, 2010, are determined as follows:

Temporary Difference	Future Taxable (Deductible) Amounts	Rate	Deferred Tax (Asset)	Deferred Tax Liability
Installment sales	$16,000	40%		$6,400
Warranty costs	(10,000)	40%	$(4,000)	
Totals	$ 6,000		$(4,000)	$6,400*

*Because all deferred taxes were computed at the same rate, these totals can be reconciled as follows: $6,000 X 40% = $(4,000) + $6,400.

Deferred tax liability at the end of 2010	$ 6,400
Deferred tax liability at the beginning of 2010	0
Deferred tax expense for 2010 (net increase required in deferred tax liability)	$ 6,400

EXERCISE 19-17 (Continued)

Deferred tax asset at the end of 2010	$ 4,000
Deferred tax asset at the beginning of 2010	0
Deferred tax expense (benefit) for 2010 (net increase required in deferred tax asset)	$ (4,000)

Deferred tax expense for 2010	$ 6,400
Deferred tax benefit for 2010	(4,000)
Net deferred tax expense for 2010	2,400
Current tax expense for 2010 (Income tax payable)	73,350
Income tax expense for 2010	$75,750

Journal entry at December 31, 2011:

Income Tax Expense	84,000	
Deferred Tax Liability	3,200	
Income Tax Payable		85,200
Deferred Tax Asset		2,000

Taxable income	$213,000
Enacted tax rate	X 40%
Income tax payable for 2011	$ 85,200

The deferred tax account balances at December 31, 2011, are determined as follows:

Temporary Difference	Future Taxable (Deductible) Amounts	Rate	Deferred Tax (Asset)	Deferred Tax Liability
Installment sales	$8,000	40%		$3,200
Warranty costs	(5,000)	40%	$(2,000)	
Totals	$3,000		$(2,000)	$3,200*

*Because all deferred taxes were computed at the same rate, these totals can be reconciled as follows: $3,000 X 40% = $(2,000) + $3,200.

Deferred tax liability at the end of 2011	$ 3,200
Deferred tax liability at the beginning of 2011	(6,400)
Deferred tax benefit for 2011 (decrease required in deferred tax liability)	$ (3,200)

EXERCISE 19-17 (Continued)

Deferred tax asset at the end of 2011	$ 2,000
Deferred tax asset at the beginning of 2011	(4,000)
Deferred tax expense for 2011 (decrease required in deferred tax asset)	$ 2,000

Deferred tax benefit for 2011	$ (3,200)
Deferred tax expense for 2011	2,000
Net deferred tax benefit for 2011	(1,200)
Current tax expense for 2011 (Income tax payable)	85,200
Income tax expense for 2011	$84,000

Journal entry at December 31, 2012:

Income Tax Expense	36,000	
Deferred Tax Liability	3,200	
Income Tax Payable		37,200
Deferred Tax Asset		2,000

Taxable income for 2012	$93,000
Enacted tax rate	X 40%
Income tax payable for 2012	$37,200

Deferred tax liability at the end of 2012	$ 0
Deferred tax liability at the beginning of 2012	3,200
Deferred tax benefit for 2012 (decrease required in deferred tax liability)	$ (3,200)

Deferred tax asset at the end of 2012	$ 0
Deferred tax asset at the beginning of 2012	2,000
Deferred tax expense for 2012 (decrease required in deferred tax asset)	$ 2,000

Deferred tax benefit for 2012	$ (3,200)
Deferred tax expense for 2012	2,000
Net deferred tax benefit for 2012	(1,200)
Current tax expense for 2012 (Income tax payable)	37,200
Income tax expense for 2012	$36,000

EXERCISE 19-18 (20–25 minutes)

(a)

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	December 31, 2010 Deferred Tax (Asset)	Liability
Installment sales	£ 96,000	35%		£33,600
Depreciation	30,000	35%		10,500
Unearned rent	(100,000)	35%	£(35,000)	
Totals	£ 26,000		£(35,000)*	£44,100*

*Because of a flat tax rate, these totals can be reconciled: £26,000 X 35% = £(35,000) + £44,100.

(b)

Pretax financial income for 2010	£250,000
Excess profit per books	(96,000)
Excess depreciation per tax return	(30,000)
Excess rental income per tax return	100,000
Taxable income	£224,000

(c)

Income Tax Expense	98,700	
Deferred Tax Asset	35,000	
Income Tax Payable		89,600
Deferred Tax Liability		44,100

Taxable income	£224,000
Tax rate	X 40%
Income tax payable	£ 89,600

Deferred tax liability at the end of 2010	£ 44,100
Deferred tax liability at the beginning of 2010	0
Deferred tax expense for 2010 (net increase required in deferred tax liability)	£ 44,100

Deferred tax asset at the end of 2010	£ 35,000
Deferred tax asset at the beginning of 2010	0
Deferred tax benefit for 2010 (net increase required in deferred tax asset)	£ (35,000)

Deferred tax expense for 2010	£ 44,100
Deferred tax benefit for 2010	(35,000)
Net deferred tax expense for 2010	9,100
Current tax expense for 2010 (Income tax payable)	89,600

Income tax expense for 2010....................................	**£ 98,700**

EXERCISE 19-19 (25–30 minutes)

(a) (All figures are in ¥ millions.)

Temporary Difference	Rate	Resulting Deferred Tax (Asset)	Resulting Deferred Tax Liability
¥90 million estimated costs per books	40%	¥(36)	
¥50 million excess depreciation per tax	40%		¥20
Totals		¥(36)	¥20

(b) Non-current assets

Deferred tax asset		
(¥36,000,000 – ¥20,000,000)		¥ 16,000,000

(c)

Income before income taxes		¥ 95,000,000[2]
Income tax expense		
Current	¥64,000,000[1]	
Deferred	(26,000,000)[3]	38,000,000[4]
Net income		¥ 57,000,000

[1]Taxable income for 2010	¥160,000,000
Enacted tax rate	X 40%
Income tax payable for 2010	¥ 64,000,000

[2]¥10,000,000 ÷ 40% = ¥25,000,000 cumulative taxable temporary difference at the beginning of 2010.

Cumulative taxable temporary difference at the end of 2010	¥ 50,000,000
Cumulative taxable temporary difference at the beginning of 2010	(25,000,000)
Taxable temporary difference originating during 2010	¥ 25,000,000

Cumulative deductible temporary difference at the end of 2010	¥ 90,000,000
Cumulative deductible temporary difference at the beginning of 2010	0
Deductible temporary difference originating during 2010	¥ 90,000,000

EXERCISE 19-19 (Continued)

Pretax financial income for 2010	¥ X
Taxable temporary difference originating	(25,000,000)
Deductible temporary difference originating	90,000,000
Taxable income for 2010	¥160,000,000

Solving for X:

$X - ¥25{,}000{,}000 + ¥90{,}000{,}000 = ¥160{,}000{,}000$

$X = \underline{\underline{¥95{,}000{,}000}}$ = Pretax financial income

[3]Deferred tax liability at the end of 2010	¥ 20,000,000
Deferred tax liability at the beginning of 2010	(10,000,000)
Deferred tax expense for 2010 (increase in deferred tax liability)	¥ 10,000,000

Deferred tax asset at the end of 2010	¥ 36,000,000
Deferred tax asset at the beginning of 2010	0
Deferred tax benefit for 2010 (increase in deferred tax asset)	(36,000,000)
Deferred tax expense for 2010	10,000,000
Net deferred tax benefit for 2010	¥ (26,000,000)

[4]Net deferred tax benefit for 2010	¥ (26,000,000)
Current tax expense for 2010 (Income tax payable)....	64,000,000
Income tax expense for 2010	¥ 38,000,000

EXERCISE 19-20 (15–20 minutes)

(a)

Income Tax Expense	156,000	
Deferred Tax Asset	51,000	
Income Tax Payable		187,000
Deferred Tax Liability		20,000

	Future Years			
	2011	2012	2013	Total
Future taxable (deductible) amounts				
Depreciation	$ 20,000	$30,000	$10,000	$ 60,000
Warranty costs	(150,000)			$(150,000)
Enacted tax rate	X 34%	X 34%	X 30%	
Deferred tax liability	$ 6,800	$10,200	$ 3,000	$ 20,000
Deferred tax (asset)	$ (51,000)			$ (51,000)

EXERCISE 19-20 (Continued)

Taxable income for 2010	**$550,000**
Tax rate	**X 34%**
Income tax payable for 2010	**$187,000**
Deferred tax liability at the end of 2010	**$ 20,000**
Deferred tax liability at the beginning of 2010	**0**
Deferred tax expense for 2010 (increase in deferred tax liability account)	**$ 20,000**
Deferred tax asset at the end of 2010	**$ 51,000**
Deferred tax asset at the beginning of 2010	**0**
Deferred tax benefit for 2010 (increase in deferred tax asset)	**$ (51,000)**
Deferred tax benefit for 2010	**$ (51,000)**
Deferred tax expense for 2010	**20,000**
Net deferred tax benefit for 2010	**(31,000)**
Current tax expense for 2010 (Income tax payable)	**187,000**
Income tax expense for 2010	**$156,000**

(b) **Non-current assets**

Deferred tax asset ($51,000 – $20,000)	**$ 31,000**

EXERCISE 19-21 (20–25 minutes)

(a)	Income Tax Expense	212,680	
	Deferred Tax Asset	12,920	
	Income Tax Payable		136,000
	Deferred Tax Liability		89,600

Taxable income	$400,000
Enacted tax rate	X 34%
Income tax payable	$136,000

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax (Asset)	Deferred Tax Liability
Installment sale	$ 40,000	34%[1]		$13,600
Installment sale	200,000*	38%[2]		76,000
Loss accrual	(34,000)**	38%	$(12,920)	
Totals	$206,000		$(12,920)	$89,600

*$50,000 + $60,000 + $90,000 = $200,000.
**$15,000 + $19,000 = $34,000.
[1]Tax rate for 2011.
[2]Tax rate for 2012–2015.

Deferred tax liability at the end of 2010	$ 89,600
Deferred tax liability at the beginning of 2010	0
Deferred tax expense for 2010 (increase required in deferred tax liability)	$ 89,600

Deferred tax asset at the end of 2010	$ 12,920
Deferred tax asset at the beginning of 2010	0
Deferred tax benefit for 2010 (increase required in deferred tax asset)	$ (12,920)

Deferred tax expense for 2010	$ 89,600
Deferred tax benefit for 2010	(12,920)
Net deferred tax expense for 2010	76,680
Current tax expense for 2010 (Income tax payable)	136,000
Income tax expense for 2010	$212,680

(b) Non-current liabilities

Deferred tax liability ($89,600 – $12,920)	$ 76,680

EXERCISE 19-22 (15–20 minutes)

(a)

Income Tax Expense	112,200	
Deferred Tax Asset	6,800	
Income Tax Payable		102,000
Deferred Tax Liability		17,000

Taxable income	$300,000
Enacted tax rate	X 34%
Income tax payable	$102,000

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax (Asset)	Deferred Tax Liability
Accounts receivable	$50,000	34%		$17,000
Litigation liability	(20,000)	34%	$(6,800)	
Totals	$30,000		$(6,800)	$17,000

*Because of a flat tax rate for all periods, these totals can be reconciled as follows: $30,000 X 34% = $(6,800) + $17,000.

Deferred tax liability at the end of 2010	$ 17,000
Deferred tax liability at the beginning of 2010	0
Deferred tax expense for 2010 (increase required in deferred tax liability)	$ 17,000

Deferred tax asset at the end of 2010	$ 6,800
Deferred tax asset at the beginning of 2010	0
Deferred tax benefit for 2010 (increase required in deferred tax asset)	$ (6,800)

Deferred tax expense for 2010	$ 17,000
Deferred tax benefit for 2010	(6,800)
Net deferred tax expense for 2010	10,200
Current tax expense for 2010 (Income tax payable)	102,000
Income tax expense for 2010	$112,200

(b) Non-current liabilities

Deferred tax liability ($17,000 – $6,800)	$ 10,200

EXERCISE 19-23 (30–35 minutes)

(a) **2009**

Income Tax Expense	37,400	
Income Tax Payable (£110,000 X 34%)		37,400

2010

Income Tax Expense	30,600	
Income Tax Payable (£90,000 X 34%)		30,600

2011

Income Tax Refund Receivable	68,000	
Deferred Tax Asset	22,800	
Benefit Due to Loss Carryback		68,000*
Benefit Due to Loss Carryforward		22,800**

*[34% X £(110,000)] + [34% X £(90,000)] = £68,000
**38% X (£260,000 – £110,000 – £90,000) = £22,800

2012

Income Tax Expense	83,600	
Income Tax Payable		60,800*
Deferred Tax Asset		22,800

*[(£220,000 – £60,000) X 38%]

(b)

Operating loss before income taxes		£(260,000)
Income tax benefit		
Benefit due to loss carryback	£68,000	
Benefit due to loss carryforward	22,800	90,800
Net loss		£(169,200)

(c) **2011**

Income Tax Refund Receivable	68,000	
Deferred Tax Asset	17,100	
Benefit Due to Loss Carryback		68,000*
Benefit Due to Loss Carryforward		17,100**

*[34% X £(110,000)] + [34% X £(90,000)] = £68,000
**38% X [(£260,000 – £110,000 – £90,000)] X 3/4 = £17,100

EXERCISE 19-23 (Continued)

2012

Income Tax Expense	83,600	
Deferred Tax Asset		17,100
Benefit Due to Loss Carry Forward (£60,000 X .38 X 1/4)		5,700
Income Tax Payable [($220,000 – $60,000) X 38%]		60,800

(d)

Operating loss before income taxes		£(260,000)
Income tax benefit		
Benefit due to loss carryback	£68,000	
Benefit due to loss carryforward	17,100	85,100
Net loss		£(174,900)

Note: Using the assumption in part (a), the income tax section of the 2012 income statement would appear as follows:

Income before income taxes		£220,000
Income tax expense		
Current	£60,800	
Deferred	22,800	83,600
Net income		£136,400

Note: Using the assumption in part (c), the income tax section of the 2012 income statement would appear as follows:

Income before income taxes		£220,000
Income tax expense		
Current	£60,800	
Deferred	17,100	
Benefit due to loss carry forward	(5,700)	72,200
Net income		£147,800

EXERCISE 19-24 (30–35 minutes)

(a) **2009**

Income Tax Expense	40,000	
Income Tax Payable (€100,000 X 40%)		40,000

2010

Income Tax Expense	36,000	
Income Tax Payable (€90,000 X 40%)		36,000

2011

Income Tax Refund Receivable	76,000	
Deferred Tax Asset	11,250	
Benefit Due to Loss Carryback		76,000*
Benefit Due to Loss Carryforward		11,250**

*[40% X €(100,000)] + [40% X €(90,000)] = €76,000
**45% X [(€240,000 – €100,000 – €90,000)] X 1/2 = €11,250

2012

Income Tax Expense	54,000	
Deferred Tax Asset		11,250
Benefit Due to Loss Carryforward		11,250
Income Tax Payable [(€120,000 – €50,000) X 45%]		31,500

(b)

Operating loss before income taxes		€(240,000)
Income tax benefit		
Benefit due to loss carryback	€76,000	
Benefit due to loss carryforward	11,250	87,250
Net loss		€(152,750)

(c)

Income before income taxes		€ 120,000
Income tax expense		
Current	€31,500	
Deferred	11,250	
Benefit due to loss carryforward	(11,250)	31,500
Net income		€ 88,500

EXERCISE 19-25 (15–20 minutes)

(a) 2011

Income Tax Expense ($90,000 X .40)	36,000	
Income Tax Payable		36,000

2012

Income Tax Refund Receivable	155,000	
Deferred Tax Asset	35,200	
Benefit Due to Loss Carryback		155,000*
Benefit Due to Loss Carryforward		35,200**

*($350,000 X .34) + ($90,000 X .40)
**[($550,000 – $350,000 – $90,000) X .40] X 4/5

2013

Income Tax Expense ($180,000 X .40)	72,000	
Income Tax Payable [($180,000 – $110,000) X .40]		28,000
Deferred Tax Asset		35,200
Benefit Due to Loss Carryforward		8,800

(b)

Loss before income taxes		$(550,000)
Income tax benefit		
Benefit due to loss carryback	$155,000	
Benefit due to loss carryforward	35,200	190,200
Net loss		$(359,800)

TIME AND PURPOSE OF PROBLEMS

Problem 19-1 (Time 40–45 minutes)
Purpose—to provide the student with an understanding of how to compute and properly classify deferred income taxes when there are three types of temporary differences. A single tax rate applies. The student is required to compute and classify deferred income taxes. Also, the student must use data given to solve for both taxable income and pretax financial income. The latter computation is complicated by the fact there are deferred taxes at the beginning of the year.

Problem 19-2 (Time 50–60 minutes)
Purpose—to provide the student with a situation where: (1) a temporary difference originates over a three-year period and begins to reverse in the fourth period, (2) a change in an enacted tax rate occurs in a year in which there is a change in the amount of cumulative temporary difference, (3) the amount of originating or reversing temporary difference must be calculated each year in order to determine the cumulative temporary difference at the end of each year, and (4) there is a permanent difference along with a temporary difference each year. Journal entries are required for each of four years, including the entry for the adjustment of deferred taxes due to the change in the enacted tax rate.

Problem 19-3 (Time 40–45 minutes)
Purpose—to provide the student with an understanding of how future temporary differences for existing depreciable assets are considered in determining the future years in which existing temporary differences result in taxable or deductible amounts. The student is given information about pretax financial income, one temporary difference, and one permanent difference. The student must compute all amounts related to income taxes for the current year and prepare the journal entry to record them. In order to determine the beginning balance in a deferred tax account, the student must calculate deferred taxes for the prior year's statement of financial position. An income statement presentation is also required and a discontinued operations gain is recognized in the current period.

Problem 19-4 (Time 20–25 minutes)
Purpose—to provide the student with an understanding of permanent and temporary differences when there are multiple differences and a single rate.

Problem 19-5 (Time 20–25 minutes)
Purpose—to provide the student with a situation involving a net operating loss which can be partially offset by prior taxes paid using the carryback provision. Journal entries for the loss year and two subsequent years are required. The benefits of the loss carryforward are realized in the year following the loss year. Income statement presentations are required for the loss year where the benefits of the carryback and the carryforward are recognized and the year following the loss year where the benefits of the carryforward are realized.

Problem 19-6 (Time 20–25 minutes)
Purpose—to provide the student with an understanding of how the computation and classification of deferred income taxes are affected by the individual future year(s) in which future taxable and deductible amounts are scheduled to occur because of existing temporary differences. Two situations are given and the student is required to compute and classify the deferred income taxes for each. A net deferred tax asset results in both cases.

Problem 19-7 (Time 45–50 minutes)
Purpose—to provide the student with a situation where: (1) a temporary difference originates in one period and reverses over the following two periods, (2) a change in an enacted tax rate occurs in a year in which there is a change in the amount of cumulative temporary difference, and (3) the amount of originating or reversing temporary difference must be calculated each year in order to determine the cumulative temporary difference at the end of each year. Journal entries are required for each of three years, including the entry for the adjustment of deferred taxes due to the change in the enacted tax rate.

Problem 19-8 (Time 40–50 minutes)
Purpose—to test a student's understanding of the relationships that exist in the subject area of accounting for income taxes. The student is required to compute and classify deferred income taxes for two successive years. The journal entry to record income taxes is also required for each year. A draft of the income tax expense section of the income statement is also required for each year. An interesting twist to this problem is that the student must compute taxable income for two individual periods based on facts about the tax rate and amount of taxes paid for each period and then combine that information with data on temporary differences to compute pretax financial income.

Problem 19-9 (Time 40–50 minutes)
Purpose—to test a student's ability to compute and classify deferred taxes for three temporary differences and to draft the income tax expense section of the income statement for the year.

SOLUTIONS TO PROBLEMS

PROBLEM 19-1

(a) X(.40) = $320,000 taxes due for 2010
X = $320,000 ÷ .40
X = $800,000 taxable income for 2010

(b)

Taxable income [from part (a)]	$800,000
Excess depreciation	120,000
Governmental interest	10,000
Unearned rent	(40,000)
Pretax financial income for 2010	$890,000

(c)

2010

Income Tax Expense ($320,000 + $42,000 – $14,000)	348,000	
Deferred Tax Asset ($40,000 X .35)	14,000	
Income Tax Payable ($800,000 X .40)		320,000
Deferred Tax Liability ($120,000 X .35)		42,000

2011

Income Tax Expense ($343,000 + $7,000 – $10,500)	339,500	
Deferred Tax Liability [($120,000 ÷ 4) X .35]	10,500	
Income Tax Payable ($980,000 X .35)		343,000
Deferred Tax Asset [($40,000 ÷ 2) X .35]		7,000

(d)

Income before income taxes		$890,000
Income tax expense		
Current	$320,000	
Deferred ($42,000 – $14,000)	28,000	348,000
Net income		$542,000

PROBLEM 19-2

(a) Before deferred taxes can be computed, the amount of temporary difference originating (reversing) each period and the resulting cumulative temporary difference at each year-end must be computed:

	2010	2011	2012	2013
Pretax financial income	€290,000	€320,000	€350,000	€420,000
Nondeductible expense	30,000	30,000	30,000	30,000
Subtotal	320,000	350,000	380,000	450,000
Taxable income	180,000	225,000	260,000	560,000
Temporary difference originating (reversing)	€140,000	€125,000	€120,000	€(110,000)

	Cumulative Temporary Difference At End of Year	
2010	€140,000	
2011	€265,000	(€140,000 + €125,000)
2012	€385,000	(€265,000 + €120,000)
2013	€275,000	(€385,000 – €110,000)

Because the temporary difference causes pretax financial income to exceed taxable income in the period it originates, the temporary difference will cause future taxable amounts.

Taxable income for 2010	€180,000
Enacted tax rate for 2010..	X 35%
Current tax expense for 2010 (Income tax payable)	€ 63,000

2010

Income Tax Expense...	112,000	
Income Tax Payable		63,000
Deferred Tax Liability		49,000

The deferred taxes at the end of 2010 would be computed as follows:

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax (Asset)	Deferred Tax Liability
Depreciation	€140,000	35%		€49,000

Deferred tax liability at the end of 2010	€ 49,000
Deferred tax liability at the beginning of 2010	0
Deferred tax expense for 2010 (increase in deferred tax liability)	€ 49,000

Deferred tax expense for 2010	€ 49,000
Current tax expense for 2010 (Income tax payable)	63,000
Income tax expense for 2010	€112,000

2011

Income Tax Expense	7,000*	
Deferred Tax Liability		7,000
(To record the adjustment for the increase in the enacted tax rate)		

Income Tax Expense	140,000	
Income Tax Payable		90,000
Deferred Tax Liability		50,000
(To record income taxes for 2011)		

*The adjustment due to the change in the tax rate is computed as follows:

Cumulative temporary difference at the end of 2010	€140,000
Newly enacted tax rate for future years	X 40%
Adjusted balance of deferred tax liability at the end of 2010	56,000
Current balance of deferred tax liability	(49,000)
Adjustment due to increase in enacted tax rate	€ 7,000

PROBLEM 19-2 (Continued)

Taxable income for 2011	€225,000
Enacted tax rate	40%
Current tax expense for 2011 (Income tax payable)	€ 90,000

The deferred taxes at December 31, 2011, are computed as follows:

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax (Asset)	Deferred Tax Liability
Depreciation	€265,000	40%		€106,000

Deferred tax liability at the end of 2011	€106,000
Deferred tax liability at the beginning of 2011 after adjustment	(56,000)
Deferred tax expense for 2011 exclusive of adjustment due to change in tax rate (increase in deferred tax liability)	€ 50,000

Deferred tax expense for 2011	€ 50,000
Current tax expense for 2011 (Income tax payable)	90,000
Income tax expense (total) for 2011, exclusive of adjustment due to change in tax rate	€140,000

2012

Income Tax Expense	152,000	
Income Tax Payable		104,000
Deferred Tax Liability		48,000

Taxable income for 2012	€260,000
Enacted tax rate	X 40%
Current tax expense for 2012 (Income tax payable)	€104,000

The deferred taxes at December 31, 2012, are computed as follows:

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax (Asset)	Deferred Tax Liability
Depreciation	€385,000	40%		€154,000

PROBLEM 19-2 (Continued)

Deferred tax liability at the end of 2012	€154,000
Deferred tax liability at the beginning of 2012	106,000
Deferred tax expense for 2012 (increase in deferred tax liability)	€ 48,000

Deferred tax expense for 2012	€ 48,000
Current tax expense for 2012 (Income tax payable)	104,000
Income tax expense for 2012	€152,000

2013

Income Tax Expense	180,000	
Deferred Tax Liability	44,000	
Income Tax Payable		224,000

Taxable income for 2013	€560,000
Enacted tax rate	X 40%
Current tax expense for 2013 (Income tax payable)	€224,000

The deferred taxes at December 31, 2013, are computed as follows:

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax (Asset)	Deferred Tax Liability
Depreciation	€275,000	40%		€110,000

Deferred tax liability at the end of 2013	€ 110,000
Deferred tax liability at the beginning of 2013	(154,000)
Deferred tax benefit for 2013 (decrease in deferred tax liability)	€ (44,000)

Deferred tax benefit for 2013	€ (44,000)
Current tax expense for 2013 (Income tax payable)	224,000
Income tax expense for 2013	€ 180,000

(b) **2011**

Income before income taxes		€320,000
Income tax expense		
Current	€90,000	
Deferred	50,000	
Adjustment due to change in tax rate	7,000	147,000
Net income		€173,000

PROBLEM 19-3

	Book Depreciation	Tax Depreciation	Difference
2010	$ 150,000	$ 120,000*	$ 30,000
2011	150,000	240,000	(90,000)
2012	150,000	240,000	(90,000)
2013	150,000	240,000	(90,000)
2014	150,000	240,000	(90,000)
2015	150,000	120,000*	30,000
2016	150,000	0	150,000
2017	150,000	0	150,000
Totals	$1,200,000	$1,200,000	$ 0

*($1,200,000 ÷ 5) X .5

(a)

Pretax financial income for 2011	$1,400,000
Nontaxable interest	(60,000)
Excess depreciation ($240,000 – $150,000)	(90,000)
Taxable income for 2011	$1,250,000
Tax rate	X 35%
Income tax payable for 2011	$ 437,500

(b)

Income Tax Expense..	469,000	
Income Tax Payable		437,500
Deferred Tax Liability		21,000
Deferred Tax Asset..		10,500

Scheduling—End of 2011

	Future Years		
	2012	2013	2014
Future taxable (deductible) amounts	$(90,000)	$(90,000)	$(90,000)
Enacted tax rate	X 35%	X 35%	X 35%
Deferred tax (asset) liability	$(31,500)	$(31,500)	$(31,500)

	Future Years			
	2015	2016	2017	Total
Future taxable (deductible) amounts	$30,000	$150,000	$150,000	$60,000
Enacted tax rate	X 35%	X 35%	X 35%	
Deferred tax (asset) liability	$10,500	$ 52,500	$ 52,500	$21,000

The net deferred tax liability at December 31, 2011, is $21,000.

Scheduling—End of 2010

	Future Years			
	2011	2012	2013	2014
Future taxable (deductible) amounts	$(90,000)	$(90,000)	$(90,000)	$(90,000)
Enacted tax rate	X 35%	X 35%	X 35%	X 35%
Deferred tax (asset) liability	$(31,500)	$(31,500)	$(31,500)	$(31,500)

	Future Years			
	2015	2016	2017	Total
Future taxable (deductible) amounts	$30,000	$150,000	$150,000	$(30,000)
Enacted tax rate	X 35%	X 35%	X 35%	
Deferred tax (asset) liability	$10,500	$ 52,500	$ 52,500	$(10,500)

PROBLEM 19-3 (Continued)

The net deferred tax asset at December 31, 2010, is $10,500.

Deferred tax liability at the end of 2011	$ 21,000
Deferred tax liability at the beginning of 2011	0
Deferred tax expense for 2011 (increase in deferred tax liability)	$ 21,000
Deferred tax asset at the end of 2011	$ 0
Deferred tax asset at the beginning of 2011	10,500
Deferred tax expense for 2011 (decrease in deferred tax asset)	$ 10,500
Deferred tax expense for 2011 (from deferred tax liability)	$ 21,000
Deferred tax expense for 2011 (from deferred tax asset)	10,500
Net deferred tax expense for 2011	$ 31,500
Current tax expense for 2011 (Income tax payable)	$437,500
Deferred tax expense for 2011	31,500
Income tax expense for 2011	$469,000

(c)

Income before income taxes		$1,200,000[a]
Income tax expense		
Current ($437,500 – $70,000[b])	$367,500	
Deferred	31,500	399,000
Income from continuing operations		801,000
Discontinued operations gain	200,000	
Less applicable income tax	70,000[b]	130,000
Net income		$ 931,000

[a]$1,400,000 pretax financial income – $200,000 discontinued operations gain = $1,200,000.

[b]($200,000 X 35%)

(d) Non-current liabilities

Deferred tax liability	$21,000

PROBLEM 19-4

(a) **Schedule of Pretax Financial Income and Taxable Income for 2010**

Pretax financial income	$750,000
Permanent differences	
Bond interest revenue	(4,000)
Pollution fines	4,200
	750,200
Temporary differences	
Depreciation expense	(30,000)*
Installment sales ($100,000 – $75,000)	(25,000)
Warranty expense ($50,000 – $10,000)	40,000
Taxable income	$735,200

* Depreciation for books ($300,000/5)	= $60,000
Depreciation tax return ($300,000 X 30%)	= 90,000
Difference	$30,000

The income tax payable for 2010 is as follows:

Taxable income	$735,200
Tax rate	X 30%
Income tax payable	$220,560

The computation of the deferred income taxes for 2010 is as follows:

Temporary differences			
Depreciation expense	$(30,000) X 30% =	$(9,000)	DTL
Installment sales ($100,000 – $75,000)	(25,000) X 30% =	(7,500)	DTL
Warranty expense ($50,000 – $10,000)	40,000 X 30% =	12,000	DTA

(b) The journal entry to record income tax payable, income tax expense and deferred income taxes is as follows:

Income Tax Expense	**225,060***	
Deferred Tax Asset	**12,000**	
Deferred Tax Liability ($9,000 + $7,500)		**16,500**
Income Tax Payable		**220,560**

***Deferred tax expense for 2010 (from deferred tax liability) ($9,000 + $7,500)**	**$ 16,500**
Deferred tax benefit for 2010 (from deferred tax asset)	**(12,000)**
Net deferred tax expense for 2010	**4,500**
Current tax expense for 2010 (income tax payable)	**220,560**
Income tax expense for 2010	**$225,060**

PROBLEM 19-5

(a) **2010**

Income Tax Refund Receivable		
[(£50,000 X 30%) + (£80,000 X 40%)]	47,000	
Benefit Due to Loss Carryback		47,000
Deferred Tax Asset	20,000	
Benefit Due to Loss Carryforward		
(£180,000 – £50,000 – £80,000 = £50,000)		
(£50,000 X 40% = £20,000)		20,000

2011

Income Tax Expense	28,000	
Deferred Tax Asset		20,000
Income Tax Payable		
[(£70,000 – £50,000) X 40%]		8,000

2012

Income Tax Expense	35,000	
Income Tax Payable (£100,000 X 35%)		35,000

(b) The income tax refund receivable account totaling £47,000 will be reported under current assets on the statement of financial position at December 31, 2010. This type of receivable is usually listed immediately below inventory in the current assets section. This receivable is normally collectible within two months of filing the amended tax returns reflecting the carryback. The deferred tax asset of £20,000 should be classified as a non-current asset on the statement of financial position. Also, retained earnings is increased by £67,000 (£47,000 + £20,000) as a result of the entries to record the benefits of the loss carryback and the loss carryforward.

PROBLEM 19-5 (Continued)

(c) **2010 Income Statement**

Operating loss before income taxes		£(180,000)
Income tax benefit		
Benefit due to loss carryback	£47,000	
Benefit due to loss carryforward	20,000	67,000
Net loss		£(113,000)

(d) **2011 Income Statement**

Income before income taxes		£ 70,000
Income tax expense		
Current	£ 8,000[a]	
Deferred	20,000	28,000
Net income		£ 42,000

[a]Loss (2010)	(£ 180,000)
Loss carryback (2008)	50,000
Loss carryback (2009)	80,000
Loss carryforward (2011)	(50,000)
Taxable income 2011 before carryforward	70,000
Taxable income 2011	20,000
Enacted tax rate for 2011	X 40%
Income tax payable for 2011	£ 8,000

PROBLEM 19-6

1.

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax (Asset)	Deferred Tax Liability
2011	$ 300	30%[a]		$ 90
2012	300	30%[b]		90
2013	300	30%[c]		90
2014	300	35%[d]		105
2014	(1,600)	35%[d]	$(560)	
2015	300	35%[e]		105
Totals	$ (100)		$(560)	$480

[a]Tax rate for 2011.
[b]Tax rate for 2012.
[c]Tax rate for 2013.
[d]Tax rate for 2014
[e]Tax rate for 2015.

MOONEY CO.
Statement of Financial Position
December 31, 2010

Other assets (non-current)	
Deferred tax asset ($560 – $480)......................................	$80

2.

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax (Asset)	Deferred Tax Liability
2011	$ 300	30%[a]		$ 90
2012	300	30%[b]		90
2013	300	30%[c]		90
2013	(2,300)	30%[c]	$(690)	
2014	300	35%[d]		105
Totals	$ (1,100)		$(690)	$375

[a]Tax rate for 2011.
[b]Tax rate for 2012.
[c]Tax rate for 2013
[d]Tax rate for 2014.

ROESCH CO.
Statement of Financial Position
December 31, 2010

Other assets (non-current)	
Deferred tax asset ($690 – $375)	**$315**

PROBLEM 19-7

(a) Before deferred taxes can be computed, the amount of cumulative temporary difference existing at the end of each year must be computed:

	2010	2011	2012
Pretax financial income	$130,000	$70,000	$70,000
Taxable income	90,000	90,000	90,000
Temporary difference originating (reversing)	40,000	(20,000)	(20,000)
Cumulative temporary difference at the beginning of the year	0	40,000	20,000
Cumulative temporary difference at the end of the year	$ 40,000	$20,000	$ 0

2010

Income Tax Expense	52,000	
Income Tax Payable		36,000
Deferred Tax Liability		16,000

Taxable income for 2010	$90,000
Enacted tax rate for 2010	X 40%
Current tax expense for 2010 (Income tax payable)	$36,000

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	December 31, 2011 Deferred Tax (Asset)	Liability
Installment Accounts Receivable	$ 40,000	40%[a]		$16,000

[a]Tax rate enacted for 2010.

Deferred tax liability at the end of 2010	$16,000
Deferred tax liability at the beginning of 2010	0
Deferred tax expense for 2010 (increase in deferred tax liability)	$16,000

PROBLEM 19-7 (Continued)

Deferred tax expense for 2010	$16,000
Current tax expense for 2010 (Income tax payable)	36,000
Income tax expense for 2010	$52,000

2011

Deferred Tax Liability	2,000	
Income Tax Expense		2,000*
(To record the adjustment for the decrease in the enacted tax rate)		

Income Tax Expense	24,500	
Deferred Tax Liability	7,000	
Income Tax Payable		31,500

*Cumulative temporary difference at the end of 2010	$40,000
Newly enacted tax rate for future year	X 35%
Adjusted balance of deferred tax liability at the end of 2010	14,000
Current balance of deferred tax liability	(16,000)
Adjustment due to decrease in enacted tax rate	$ (2,000)

Taxable income for 2011	$90,000
Enacted tax rate for 2011	X 35%
Current tax expense for 2011 (Income tax payable)	$31,500

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	December 31, 2011 Deferred Tax (Asset)	December 31, 2011 Deferred Tax Liability
Installment Accounts Receivable	$20,000	35%[b]		$ 7,000

[b]Tax rate enacted for 2011.

Deferred tax liability at the end of 2011	$ 7,000
Deferred tax liability at the beginning of 2011 after adjustment ($16,000 – $2,000)	(14,000)
Deferred tax benefit for 2011 (decrease in deferred tax liability)	$ (7,000)

Deferred tax benefit for 2011	$ (7,000)
Current tax expense for 2011 (Income tax payable)	31,500
Income tax expense for 2011	$24,500

2012

Income Tax Expense	24,500	
Deferred Tax Liability	7,000	
Income Tax Payable		31,500

Taxable income for 2012	$90,000
Enacted tax rate for 2012	X 35%
Current tax expense for 2012 (Income tax payable)	$31,500

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	December 31, 2012 Deferred Tax (Asset)	Liability
Installment Accounts Receivable	$—0—	30%		$—0—

Deferred tax liability at the end of 2012	$ 0
Deferred tax liability at the beginning of 2012	7,000
Deferred tax benefit for 2012 (decrease in deferred tax liability)	$ (7,000)

Deferred tax benefit for 2012	$ (7,000)
Current tax expense for 2012 (Income tax payable)	31,500
Income tax expense for 2012	$24,500

(b) December 31, 2010

Non-current liabilities

Deferred tax liability $16,000

December 31, 2011

Non-current liabilities

Deferred tax liability .... $ 7,000

December 31, 2012

There is no deferred tax liability to be reported at this date.

PROBLEM 19-7 (Continued)

(c) **2010**

Income before income taxes		$130,000
Income tax expense		
Current	$36,000	
Deferred	16,000	52,000
Net income		$ 78,000

2011

Income before income taxes		$70,000
Income tax expense		
Current	$31,500	
Deferred	(7,000)	
Adjustment due to decrease in tax rate	(2,000)	22,500
Net income		$47,500

2012

Income before income taxes		$70,000
Income tax expense		
Current	$31,500	
Deferred	(7,000)	24,500
Net income		$45,500

PROBLEM 19-8

(a)

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax (Asset)	Deferred Tax Liability
Depreciation	¥120,000,000*	40%	¥48,000,000	

*(Computation shown on next page.)

Non-current liabilities	
Deferred tax liability..............................	¥48,000,000

(b)

Income Tax Expense	178,000,000	
Deferred Tax Liability		48,000,000
Income Tax Payable..............................		130,000,000

¥130,000,000 taxes due for 2010 ÷ 40% 2010 tax rate = ¥325,000,000 taxable income for 2010.

Taxable income for 2010	¥325,000,000
Tax rate	X 40%
Income tax payable for 2010 (also given data).............	¥130,000,000

Deferred tax liability at the end of 2010	¥ 48,000,000
Deferred tax liability at the beginning of 2010	0
Deferred tax expense for 2010 (increase in deferred tax liability)...	48,000,000
Current tax expense for 2010 (Income tax payable).....	130,000,000
Income tax expense for 2010..	¥178,000,000

(c)

Income before income taxes		¥385,000,000[a]
Income tax expense		
Current	¥130,000,000	
Deferred	48,000,000	178,000,000
Net income		¥207,000,000

[a]Pretax financial income	¥ X*
Excess depreciation per books [from (a) above]	120,000,000[b]
Taxable income [from (b) above]	¥385,000,000

PROBLEM 19-8 (Continued)

Solving for X; X – ¥60,000,000 = ¥325,000,000; X = ¥385,000 pretax financial income.

	Book Depreciation	Tax Depreciation	[b]Difference
2010	¥120,000,000	¥240,000,000*	¥(120,000,000)
2011	120,000,000	144,000,000	(24,000,000)
2012	120,000,000	86,400,000	33,600,000
2013	120,000,000	64,800,000	55,200,000
2014	120,000,000	64,800,000	55,200,000
Totals	¥600,000,000	¥600,000,000	¥ 0

***(¥600,000,000 – 0) X (1 ÷ 5) X 2**
****(¥600,000,000 – ¥240,000,000 – ¥144,000,000 – ¥86,400,000) ÷ 2 yrs.**

(d)

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax (Asset)	Deferred Tax Liability
Depreciation	¥144,000,000	40%		¥57,600,000
Unearned rent	(75,000,000)	40%	¥ (30,000,000)	
Unearned rent	(75,000,000)	40%	(30,000,000)	
Totals	¥ (6,000,000)		¥ (60,000,000)	¥57,600,000

Temporary Difference	Resulting Deferred Tax (Asset)	Resulting Deferred Tax Liability
Depreciation		¥57,600,000
Unearned rent	¥(30,000,000)	
Unearned rent	(30,000,000)	
Totals	¥(60,000,000)	¥57,600,000

<u>Other assets (non-current)</u>

Deferred tax asset ¥2,400,000

(e)

Income Tax Expense	**53,600,000**	
Deferred Tax Asset	**60,000,000**	
Income Tax Payable		**104,000,000**
Deferred Tax Liability		**9,600,000**

¥104,000,000 taxes due for 2011 ÷ 40% 2011 tax rate = ¥260,000,000 taxable income for 2011.

Taxable income for 2011	**¥260,000,000**
Tax rate for 2011	**40%**
Income tax payable for 2011 (also given data)	**¥104,000,000**

Deferred tax asset at the end of 2011	**¥ 60,000,000**
Deferred tax asset at the beginning of 2011	**0**
Deferred tax benefit for 2011 (increase in deferred tax asset)	**¥ (60,000,000)**

Deferred tax expense for 2011 (¥24,000,000 X .40)	**¥ 9,600,000**
Deferred tax benefit for 2011	**(60,000,000)**
Current tax expense for 2011 (Income tax payable)	**104,000,000**
Income tax expense for 2011	**¥ 53,600,000**

(f)

Income before income taxes		**¥134,000,000[c]**
Income tax expense		
Current	**¥104,000,000**	
Deferred	**(50,400,000)**	**53,600,000**
Net income		**¥ 80,400,000**

[c]Pretax financial income	**¥ Y**
Excess rent collected over rent earned	**150,000,000**
Excess depreciation (from schedule above)	**(24,000,000)**
Taxable income [from (e) above]	**¥260,000,000**

Solving for X:

Y + ¥150,000,000 – ¥24,000,000 = ¥260,000,000
Y = ¥260,000,000 – ¥150,000,000 + ¥24,000,000
Y = ¥134,000,000

PROBLEM 19-9

(a)

Pretax financial income	$100,000
Permanent differences:	
Fine for pollution	3,500
Tax-exempt interest	(1,500)
Originating temporary differences:	
Excess warranty expense per books ($7,000 – $2,000)	5,000
Excess construction profits per books ($92,000 – $67,000)	(25,000)
Excess depreciation per tax return ($80,000 – $60,000)	(20,000)
Taxable income	$ 62,000

(b)

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax (Asset)	Deferred Tax Liability
Warranty costs	$ (5,000)	40%	$(2,000)	
Construction profits	25,000	40%		$10,000
Depreciation	20,000	40%		8,000
Totals	$40,000		$(2,000)	$18,000*

*Because of a flat tax rate, these totals can be reconciled: $40,000 X 40% = $(2,000) + $18,000.

(c)

Income Tax Expense	40,800	
Deferred Tax Asset	2,000	
Deferred Tax Liability		18,000
Income Tax Payable		24,800

Taxable income for 2011 [answer part (a)]	$62,000
Tax rate	X 40%
Income tax payable for 2011	$24,800

Deferred tax liability at the end of 2011 [part (b)]	$18,000
Deferred tax liability at the beginning of 2011	0
Deferred tax expense for 2011	$18,000

PROBLEM 19-9 (Continued)

Deferred tax asset at the end of 2011	$ 2,000
Deferred tax asset at the beginning of 2011	0
Deferred tax benefit for 2011	$ (2,000)
Deferred tax expense for 2011	$ 18,000
Deferred tax benefit for 2011	(2,000)
Net deferred tax expense for 2011	$ 16,000
Current tax expense for 2011 (Income tax payable)	$ 24,800
Deferred tax expense for 2011	16,000
Income tax expense for 2011	$ 40,800

(d)

Income before income taxes		$100,000
Income tax expense		
Current	$24,800	
Deferred	16,000	40,800
Net income		$ 59,200

TIME AND PURPOSE OF CONCEPTS FOR ANALYSIS

CA 19-1 (Time 15–20 minutes)
Purpose—to provide the student an opportunity to explain the objectives in accounting for income taxes in the financial statements and the basic principles that are applied in meeting the objectives. The student is also required to list the steps involved in the annual computation of deferred income taxes.

CA 19-2 (Time 20–25 minutes)
Purpose—to provide the student an opportunity to discuss the principles of the asset-liability method, how the deferred tax effects of temporary differences are computed, and how the deferred tax consequences of temporary differences are classified on a statement of financial position.

CA 19-3 (Time 20–25 minutes)
Purpose—to develop an understanding of temporary and permanent differences. The student is required to explain the nature of four differences and to explain why each is a permanent or temporary difference. Two of the four situations are challenging. Also, the nature of deferred tax accounts is examined.

CA 19-4 (Time 20–25 minutes)
Purpose—to develop an understanding of deferred taxes. The student is required to indicate whether deferred income taxes should be recognized for each of four items.

CA 19-5 (Time 20–25 minutes)
Purpose—to develop an understanding of how to determine the appropriate tax rate to use in computing deferred taxes when different tax rates are enacted for various years affected by existing temporary differences.

CA 19-6 (Time 20–25 minutes)
Purpose—to develop an understanding of the concept of future taxable amounts and future deductible amounts. Also, to develop an understanding of how the carryback and carryforward provisions affect the computation of deferred tax assets and liabilities when there are multiple tax rates enacted for the various periods affected by existing temporary differences.

CA 19-7 (Time 20–25 minutes)
Purpose—to provide the student an opportunity to examine the income effects of deferred taxes, including ethical issues.

SOLUTIONS TO CONCEPTS FOR ANALYSIS

CA 19-1

(a) The objectives in accounting for income taxes are:
1. To recognize the amount of taxes payable or refundable for the current year.
2. To recognize deferred tax liabilities and assets for the future tax consequences of events that have been recognized in the financial statements or tax returns.

(b) To implement the objectives, the following basic principles are applied in accounting for income taxes at the date of the financial statements:
1. A current tax liability or asset is recognized for the estimated taxes payable or refundable on the tax return for the current year.
2. A deferred tax liability or asset is recognized for the estimated future tax effects attributable to temporary differences and loss carryforwards using the enacted marginal tax rate.
3. The measurement of current and deferred tax liabilities and assets is based on provisions of the enacted tax law; the effects of future changes in tax laws or rates are not anticipated.
4. The measurement of deferred tax assets is adjusted, if necessary, to not recognize tax benefits that are not expected to be realized.

(c) The procedures for the annual computation of deferred income taxes are as follows:
1. Identify: (1) the types and amounts of existing temporary differences and (2) the nature and amount of each type of operating loss and tax credit carryforward and the remaining length of the carryforward period.
2. Measure the total deferred tax liability for taxable temporary differences using the enacted tax rate.
3. Measure the total deferred tax asset for deductible temporary differences and operating loss carryforwards using the enacted tax rate.
4. Measure deferred tax assets for each type of tax credit carryforward.

CA 19-2

(a) The following basic principles are applied in accounting for income taxes at the date of the financial statements:
1. A current tax liability or asset is recognized for the estimated taxes payable or refundable on the tax return for the current year.
2. A deferred tax liability or asset is recognized for the estimated future tax effects attributable to temporary differences and loss carryforwards using the enacted tax rate.
3. The measurement of current and deferred tax liabilities and assets is based on provisions of the enacted tax law; the effects of future changes in tax laws or rates are not anticipated.
4. The measurement of deferred tax assets is adjusted, if necessary, to not recognize tax benefits that are not expected to be realized.

(b) Dexter should do the following in accounting for the temporary differences.
1. Identify the types and amounts of existing temporary differences. The depreciation policies give rise to a temporary difference that will result in net future taxable amounts (because depreciation for tax purposes exceeds the depreciation for financial statements). Rents are taxed in the year they are received but reported on the income statement in the year earned. The collection of rent revenue in advance will cause future deductible amounts.
2. Measure the total deferred tax liability for the taxable temporary difference using the enacted tax rate.

CA 19-2 (Continued)

3. Measure the total deferred tax asset for the deductible temporary difference using the enacted marginal tax rate.
4. The measurement of deferred tax assets is adjusted if necessary for the benefits not expected to be realized.

(c) Deferred tax accounts are reported on the statement of financial position as assets or liabilities. They should be classified in a net non-current amount.

Dexter's deferred tax liability resulting from the depreciation difference should be reported as a non-current liability.

Dexter's deferred tax asset resulting from the advance collection of rents should be reported as a non-current asset.

CA 19-3

(a) 1. Temporary difference. The full estimated three years of warranty costs reduce the current year's pretax financial income, but will reduce taxable income in varying amounts each respective year, as paid. Assuming the estimate as to each warranty is valid, the total amounts deducted for accounting and for tax purposes will be equal over the three-year period for a given warranty. This is an example of an expense that, in the first period, reduces pretax financial income more than taxable income and, in later years, reverses. This type of temporary difference will result in future deductible amounts which will give rise to the current recognition of a deferred tax asset. Another way to evaluate this situation is to compare the carrying value of the warranty liability with its tax basis (which is zero). When the liability is settled in a future year an expense will be recognized for tax purposes but none will be recognized for financial reporting purposes. Therefore, tax benefits for the tax deductions should result from the future settlement of the liability.

2. Temporary difference. The difference between the tax basis and the reported amount (book basis) of the depreciable property will result in taxable or deductible amounts in future years when the reported amount of the asset is recovered (through use or sale of the asset); hence, it is a temporary difference.

3. Temporary difference and permanent difference. The investor's share of earnings of an investee (other than subsidiaries and corporate joint ventures) accounted for by the equity method is included in pretax financial income while only 20% of dividends received from some domestic corporations are included in U.S. taxable income. Of the amount included in pretax financial income, 80% is a permanent difference attributable to the dividends-received deduction permitted when computing taxable income. Twenty percent of the amount included in pretax financial income is potentially a temporary difference which will reverse as dividends are received. If the investee distributes 10% of its earnings, then one-half of the potential temporary difference is eliminated and 10% of the amount included in pretax financial income is a temporary difference.

4. Temporary difference. For financial reporting purposes, any gain experienced in an involuntary conversion of a non-monetary asset to a monetary asset must be recognized in the period of conversion. For tax purposes, this gain may be deferred if the total proceeds are reinvested in replacement property within a certain period of time. When such a gain is deferred, the tax basis of the replacement property is less than its carrying value and this difference will result in future taxable amounts. Hence, this is a temporary difference.

CA 19-3 (Continued)

(b) Deferred tax assets and deferred tax liabilities are separately recognized and measured but are offset in the statement of financial position. Deferred tax accounts are reported on the statement of financial position as assets and liabilities. They should be classified in a net non-current amount.

CA 19-4

(a) Deferred income taxes are reported in the financial statements when temporary differences exist at the statement of financial position date. Deferred taxes are never reported for permanent differences.

The tax consequences of most events recognized in the financial statements for a year are included in determining income taxes currently payable. However, tax laws often differ from the recognition and measurement requirements of financial accounting standards, and differences can arise between: (1) the amount of taxable income and pretax financial income for a year and (b) the tax bases of assets or liabilities and their reported amounts in financial statements. An assumption inherent in an enterprise's statement of financial position prepared in accordance with IFRS is that the reported amounts of assets and liabilities will be recovered and settled, respectively. Based on that assumption, a difference between the tax basis of an asset or a liability and its reported amount in the statement of financial position will result in taxable or deductible amounts in some future year(s) when the reported amounts of assets are recovered and the reported amounts of liabilities are settled.

A deferred tax liability is reported for the increase in taxes payable in future years as a result of taxable temporary differences existing at the balance sheet date. A deferred tax asset is reported for the increase in taxes refundable in future years as a result of deductible temporary differences existing at the statement of financial position date. The most common temporary differences arise from including revenues or expenses in taxable income in a period later or earlier than the period in which they are included in pretax financial income.

(b)
1. Income on installment sales—Deferred income taxes would be recognized when income on installment sales is included in pretax financial income in the year of sale and included in taxable income when later collected.
2. Revenues on long-term construction contracts—Deferred income taxes would be recognized whenever revenues on long-term construction contracts are recognized for financial reporting purposes on the percentage-of-completion basis but deferred for tax purposes.
3. Estimated costs of product warranty contracts—Deferred income taxes should usually be recognized because estimated costs of product warranty contracts should be recognized for financial reporting purposes in the year of sale and reported for tax purposes when paid.
4. Interest on tax-exempt bonds—This is a permanent difference and deferred income taxes should not be recognized. Interest revenue should be recognized in Gumowski Company's income statement but is not taxable for tax purposes.

CA 19-5

(a) The 45% tax rate would be used in computing the deferred tax liability at December 31, 2010, if a net operating loss (an NOL) is expected in 2011 that is to be carried back to 2010 (the enacted tax rate is 45% in 2010). (See discussion on the next page.)

(b) The 40% tax rate would be used in computing the deferred tax liability at December 31, 2010, if taxable income is expected in 2011 (the tax rate enacted for 2011 is 40% and 2011 is the year in which the future taxable amount is expected to occur). (See discussion on the next page.)

CA 19-5 (Continued)

(c) The 34% tax rate would be used in computing the deferred tax liability at December 31, 2010, if a net operating loss (an NOL) is expected in 2011 that is to be carried forward to 2012 (the tax rate enacted for 2012 is 34%). (See discussion below.)

***Discussion*:**

In determining the future tax consequences of temporary differences, it is helpful to prepare a schedule which shows in which future years existing temporary differences will result in taxable or deductible amounts. The appropriate enacted tax rate is applied to these future taxable and deductible amounts. In determining the appropriate tax rate, you must make assumptions about whether the entity will report taxable income or losses in the various future years expected to be affected by the reversal of existing temporary differences. Thus, you calculate the taxes payable or refundable in the future due to existing temporary differences. In making these calculations, you apply the provisions of the tax laws and enacted tax rates for the relevant periods.

For future taxable amounts:
1. If taxable income is expected in the year that a future taxable amount is scheduled, use the enacted rate for that future year to calculate the related deferred tax liability.
2. If an NOL is expected in the year that a future taxable amount is scheduled, use the enacted rate of what would be the prior year the NOL would be carried back to or the enacted rate of the future year to which the carryforward would apply, whichever is appropriate, to calculate the related deferred tax liability.

For future deductible amounts:
1. If taxable income is expected in the year that a future deductible amount is scheduled, use the enacted rate for that future year to calculate the related deferred tax asset.
2. If an NOL is expected in the year that a future deductible amount is scheduled, use the enacted rate of what would be the prior year the NOL would be carried back to or the enacted rate of the future year to which the carryforward would apply, whichever is appropriate, to calculate the related deferred tax asset.

CA 19-6

(a) Future taxable amounts increase taxable income relative to pretax financial income in the future due to temporary differences existing at the statement of financial position date. Future deductible amounts decrease taxable income relative to pretax financial income in the future due to existing temporary differences.

A deferred tax liability should be recorded for the deferred tax consequences attributable to the future taxable amounts scheduled and a deferred tax asset should be recorded for the deferred tax consequences attributable to the future deductible amounts scheduled.

(b) The carryback and carryforward provisions will affect the amounts to be reported for the resulting deferred tax asset and deferred tax liability.

In computing deferred tax account balances to be reported at a statement of financial position date, the appropriate enacted tax rate is applied to future taxable and deductible amounts related to temporary differences existing at the statement of financial position date. In determining the appropriate tax rate, you must make assumptions about whether the entity will report taxable income or losses in the various future years expected to be affected by the existing temporary differences. Thus, you calculate the taxes payable or refundable in the future due to existing temporary differences. In making these calculations, you apply the provisions of the tax laws and enacted tax rates for the relevant periods.

CA 19-6 (Continued)

For future taxable amounts:

1. If taxable income is expected in the year that a future taxable amount is scheduled, use the enacted rate for that future year to calculate the related deferred tax liability.
2. If an NOL is expected in the year that a future taxable amount is scheduled, use the enacted rate of what would be the prior year the NOL would be carried back to or the enacted rate of the future year to which the carryforward would apply, whichever is appropriate, to calculate the related deferred tax liability.

For future deductible amounts:

1. If taxable income is expected in the year that a future deductible amount is scheduled, use the enacted rate for that future year to calculate the related deferred tax asset.
2. If an NOL is expected in the year that a future deductible amount is scheduled, use the enacted rate of what would be the prior year the NOL would be carried back to or the enacted rate of the future year to which the carryforward would apply, whichever is appropriate, to calculate the related deferred tax asset.

CA 19-7

(a) To realize a sizable deferred tax liability, Acme must have used an accelerated depreciation method for tax purposes while using straight-line depreciation for its financial statements. Once the temporary difference reversed, taxable income would exceed financial accounting income. Acme would be required to pay the taxes it "deferred" from the years when tax depreciation exceeded book depreciation. To stop this from happening, Acme would have to sell these plant assets. It probably would have to report a gain on sale, but it likely would be taxed at the favorable capital gains rates. If Acme buys new plant assets and again uses accelerated depreciation for tax purposes and straight-line for books, it will perpetuate a "deferral" of income taxes.

(b) The deferral of income taxes means that due to temporary differences caused by the difference in financial accounting principles and tax laws, a company will be able to defer paying its income taxes (or reaping an income tax benefit) until future periods. The practice of selling-off assets before the temporary difference reverses means that the company may pay a lesser amount of taxes to the government. Although some might be concerned that Acme is not paying its "fair share," Acme appears to be minimizing its taxes through a tax strategy plan which is perfectly legal. The taxing authority has chosen to provide these incentives and there is nothing wrong with Acme deferring the payable.

(c) The primary stakeholders who could be harmed by Acme's income tax practice are the federal government, which receives fewer taxes as a result of this practice. Ultimately, other taxpayers have to pay more. In addition, if replacement plant assets are very costly to acquire, positive cash flow is reduced. Though the impact should not be great, investors and creditors are affected negatively.

(d) As a public accountant, Stephanie is obligated to uphold objectivity and integrity in the practice of financial reporting. If she thinks that this practice is unethical, then she needs to communicate her concerns to the highest levels of management within Acme, including members of the Board of Directors and/or the Audit Committee. However, it would appear here that Acme is simply trying to minimize its income taxes which should not be considered unethical.

FINANCIAL REPORTING PROBLEM

(a) 1. Per M&S's 2008 note 6:

"Total income tax expense .... £308.1 million"

2. Per M&S's 29 March, 2008 statement of financial position:

In non-current liabilities:

"Deferred tax liabilities .... £372.1 million"

3. Per M&S's 2008 statement of cash flows:

In cash flows provided by operating activities:

"Taxes paid .... £166.2 million"

(b) M&S's post-exceptional effective tax rates:

2008: (27.3%), 2007: (29.6%)

(c) Income tax expense:

Current	**£117.4**
Deferred	**190.7**
Total	**£308.1**

(d) Significant components of M&S's deferred tax liabilities at 29 March, 2008 were as follows:

Deferred Tax Liabilities

Fixed assets temporary differences	**£ 76.9**
Accelerated capital allowances	**144.6**
Pension temporary differences	**139.4**
Other short-term temporary differences	**6.1**
Overseas deferred tax	**5.1**
	£372.1

COMPARATIVE ANALYSIS CASE

(a) 2008 provision for income taxes (In Millions):

Cadbury:	**Current portion**	**(£ 243)**
	Deferred portion	**213**
	Total expense	**(£ 30)**
Nestlé:	**Current portion**	**CHF3,423**
	Deferred portion	**364**
	Total expense	**CHF3,787**

(b) 2008 income tax payments (In Millions):

Cadbury	**£ 197**
Nestlé	**CHF3,207**

(c) Cadbury effective tax rate in 2008 was 28.5%.
Nestlé effective tax rate in 2008 was 7.5%.

Their effective tax rates differ due to adjustments for items such as different rates in other jurisdictions and non-taxable income.

(d)

	(In Millions)	Cadbury	Nestlé
1.	Gross deferred tax assets	£181	CHF2,842
	Gross deferred tax liabilities	121	1,341

(e) Net operating loss carryforwards at year-end 2008:

Cadbury discloses (note 24) that it has unused tax losses for which no deferred tax asset has been recognised, and it does not believe that it is more likely than not that these amounts will be recoverable.

Nestlé discusses its deductible temporary differences as well as the unused tax losses and tax credits for which no deferred tax assets are recognized (note 7.3), but does not disclose information about operating loss carrybacks or carryforwards.

FINANCIAL STATEMENT ANALYSIS CASE

(a) Of the total provision for income taxes (reported in the income statement) the "current taxes" portion represents the taxes payable in cash while the "deferred taxes" represent the taxes payable in future years (although in this case, because the deferred taxes are a credit, they represent tax benefits receivable in future years).

(b) Future taxable amounts increase taxable income relative to pretax financial income in the future due to temporary differences existing at the statement of financial position date. Future deductible amounts decrease taxable income relative to pretax financial income in the future due to existing temporary differences.

A deferred tax liability should be recorded for the deferred tax consequences attributable to the future taxable amounts scheduled and a deferred tax asset should be recorded for the deferred tax consequences attributable to the future deductible amounts scheduled.

(c) The carryback and carryforward provisions will affect the amounts to be reported for the resulting deferred tax asset and deferred tax liability.

In computing deferred tax account balances to be reported at a statement of financial position date, the appropriate enacted tax rate is applied to future taxable and deductible amounts related to temporary differences existing at the statement of financial position date. In determining the appropriate tax rate, you must make assumptions about whether the entity will report taxable income or losses in the various future years expected to be affected by the existing temporary differences. Thus, you calculate the taxes payable or refundable in the future due to existing temporary differences. In making these calculations, you apply the provisions of the tax laws and enacted tax rates for the relevant periods.

For future taxable amounts:

1. If taxable income is expected in the year that a future taxable amount is scheduled, use the enacted rate for that future year to calculate the related deferred tax liability.

2. **If an NOL is expected in the year that a future taxable amount is scheduled, use the enacted rate of what would be the prior year the NOL would be carried back to or the enacted rate of the future year to which the carryforward would apply, whichever is appropriate, to calculate the related deferred tax liability.**

For future deductible amounts:

1. **If taxable income is expected in the year that a future deductible amount is scheduled, use the enacted rate for that future year to calculate the related deferred tax asset.**

2. **If an NOL is expected in the year that a future deductible amount is scheduled, use the enacted rate of what would be the prior year the NOL would be carried back to or the enacted rate of the future year to which the carryforward would apply, whichever is appropriate, to calculate the related deferred tax asset.**

ACCOUNTING, ANALYSIS, AND PRINCIPLES

ACCOUNTING

Taxable income for 2011:

Pretax financial income for 2011		**€500,000**
Permanent differences:		
Non-taxable revenue—government bond interest	**€(28,000)**	
Non-deductible expenses—fines and penalties	**26,000**	**(2,000)**
		498,000
Temporary differences:		
Excess gross profit per books (€560,000 – €112,000)		**(448,000)**
Taxable income for 2011		**€ 50,000**
Income tax rate		**X 50%**
Income tax payable		**€ 25,000**

Allman has future taxable amounts arising from temporary differences as follows:

Year	Future taxable amount	Tax rate	Deferred tax
2012	€112,000	.40	€ 44,800
2013	112,000	.40	44,800
2014	112,000	.40	44,800
2015	112,000	.40	44,800
			€179,200

The €179,200 is a deferred tax liability because the temporary difference is from future taxable amounts.

Additional deferred tax liability needed = €179,200 – €40,000 = €139,200

Journal entry:

Income Tax Expense	**164,200**	
Income Tax Payable		**25,000**
Deferred Tax Liability		**139,200**

ANALYSIS

The €179,200 deferred tax liability would be classified as a non-current liability. Income taxes payable would be classified as a current liability.

The income tax expense portion of the income statement could look as follows:

Income before income taxes		**€500,000**
Income tax expense:		
Current	**€ 25,000**	
Deferred	**139,200**	**164,200**
Net income		**€335,800**

Allman's 2011 effective tax rate is €164,200 ÷ €500,000 = 0.3284 or 32.84 percent

PRINCIPLES

We can use the Framework to determine that deferred taxes should be reported as assets and liabilities. The Framework provides specific guidance as to how to define assets and liabilities.

PROFESSIONAL RESEARCH

(a) According to IAS 12, paragraph 34, "A deferred tax asset shall be recognised for the carryforward of unused tax losses and unused tax credits to the extent that it is probable that future taxable profit will be available against which the unused tax losses and unused tax credits can be utilised." Thus, future taxable income is important because it will help increase the amount recognized in the deferred-tax asset balance.

(b) This question relates to the information found in paragraph 36, which states "An entity considers the following criteria in assessing the probability that taxable profit will be available against which the unused tax losses or unused tax credits can be utilised:

(1) whether the entity has sufficient taxable temporary differences relating to the same taxation authority and the same taxable entity, which will result in taxable amounts against which the unused tax losses or unused tax credits can be utilised before they expire;

(2) whether it is probable that the entity will have taxable profits before the unused tax losses or unused tax credits expire;

(3) whether the unused tax losses result from identifiable causes which are unlikely to recur; and

(4) whether tax planning opportunities (see paragraph 30) are available to the entity that will create taxable profit in the period in which the unused tax losses or unused tax credits can be utilised.

To the extent that it is not probable that taxable profit will be available against which the unused tax losses or unused tax credits can be utilised, the deferred tax asset is not recognised.

(c) Paragraph 30 discusses tax planning opportunities: "Tax planning opportunities are actions that the entity would take in order to create or increase taxable income in a particular period before the expiry of a tax loss or tax credit carryforward. For example, in some jurisdictions, taxable profit may be created or increased by:

(1) electing to have interest income taxed on either a received or receivable basis;

(2) deferring the claim for certain deductions from taxable profit;

(3) selling, and perhaps leasing back, assets that have appreciated but for which the tax base has not been adjusted to reflect such appreciation; and

(4) selling an asset that generates non-taxable income (such as, in some jurisdictions, a government bond) in order to purchase another investment that generates taxable income.

Where tax planning opportunities advance taxable profit from a later period to an earlier period, the utilisation of a tax loss or tax credit carryforward still depends on the existence of future taxable profit from sources other than future originating temporary differences.

PROFESSIONAL SIMULATION

Journal Entries

Income Tax Expense	40,840	
Deferred Tax Asset	1,200	
Deferred Tax Liability		20,000
Income Tax Payable		22,040

Calculation of Deferred Taxes

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax (Asset)	Deferred Tax Liability
Warranty costs	$ (3,000)	40%	$(1,200)	
Construction profits	30,000	40%		$12,000
Depreciation	20,000	40%		8,000
Totals	$47,000		$(1,200)	$20,000*

*Because of a flat tax rate, these totals can be reconciled: $47,000 X 40% = $(1,200) + $20,000.

Calculation of Taxable Income

Pretax financial income	$100,000
Permanent differences	
Fine for pollution	3,500
Tax-exempt interest	(1,400)
Originating temporary differences	
Excess warranty expense per books ($5,000 – $2,000)	3,000
Excess construction profits per books ($92,000 – $62,000)	(30,000)
Excess depreciation per tax return ($80,000 – $60,000)	(20,000)
Taxable income	$ 55,100

Taxable income for 2010	$ 55,100
Tax rate	X 40%
Income tax payable for 2010	$ 22,040

Deferred tax liability at the end of 2010	**$ 20,000**
Deferred tax liability at the beginning of 2010	**0**
Deferred tax expense for 2010	**$ 20,000**

Deferred tax asset at the end of 2010	**$ 1,200**
Deferred tax asset at the beginning of 2010	**0**
Deferred tax benefit for 2010	**$ (1,200)**

Financial Statements

Income before income taxes		**$100,000**
Income tax expense		
Current	**$22,040**	
Deferred	**18,800**	**40,840**
Net income		**$ 59,160**

CHAPTER 20

Accounting for Pensions and Postretirement Benefits

ASSIGNMENT CLASSIFICATION TABLE (BY TOPIC)

Topics		Questions	Brief Exercises	Exercises	Problems	Concepts for Analysis
1.	Basic definitions and concepts related to pension plans.	1, 2, 3, 4, 5, 6, 7, 8, 12, 13, 23		16		1, 2, 3, 4, 5, 7
2.	Worksheet preparation.		3	3, 4, 7, 10, 14	1, 2, 7, 8, 9	
3.	Income statement recognition, computation of pension expense.	9, 10, 11, 13, 16	1, 4	1, 2, 3, 6, 11, 12, 13, 14, 15, 16, 17, 18, 19	1, 2, 3, 4, 5, 6, 9	4, 5
4.	Financial statement recognition, computation of pension expense.	15, 21, 22	2	3, 9, 11, 12, 13, 14, 16, 17	1, 2, 3, 4, 5, 6, 7, 8, 9	2, 5, 7
5.	Corridor calculation.	18	7	8, 13, 18, 19	2, 3, 5, 6, 7, 8, 9	3, 4, 5, 6
6.	Reconciliation schedule.	24	9	3, 9, 10, 13, 14, 17	1, 2, 3, 6, 8, 9	
7.	Past service cost.	12, 13	5, 6	1, 2, 3, 5, 9, 11, 12, 13, 14, 17, 19	1, 2, 3, 4, 5, 6, 7, 8, 9	1, 4
8.	Unrecognized net gain or loss.	14, 17, 19, 20	7, 8	8, 9, 13, 14, 17, 18, 19	1, 2, 3, 5, 6, 7, 8, 9	4, 5, 6
9.	Disclosure issues.	24		9, 11, 12		3, 4
10.	Special Issues.	25, 26 27, 28, 29, 30	10, 11, 12, 13	20, 21, 22	10	

ASSIGNMENT CLASSIFICATION TABLE (BY LEARNING OBJECTIVE)

Learning Objectives	Brief Exercises	Exercises	Problems
1. Distinguish between accounting for the employer's pension plan and accounting for the pension fund.			
2. Identify types of pension plans and their characteristics.			
3. Explain alternative measures for valuing the pension obligation.			
4. List the components of pension expense.	1, 2, 4	1, 2, 6, 11, 12, 13, 15, 16	
5. Use a worksheet for employer's pension plan entries.	3	3, 4, 7, 10, 11, 14	1, 2, 4, 7, 8, 9
6. Describe the amortization of past service costs.	5, 6	1, 2, 5, 7, 12, 13, 16, 17	1, 2, 3, 4, 6, 7, 8, 9
7. Explain the accounting for unexpected gains and losses.		12, 13, 17	1, 2, 3, 4, 5, 6, 7, 8, 9
8. Explain the corridor approach to amortizing gains and losses.	7, 8	8, 12, 13, 17, 18, 19	3, 4, 5, 6, 7, 8
9. Describe the requirements for reporting pension plans in financial statements.	9	9, 10, 11, 12, 13, 15, 16, 17	1, 2, 3, 4, 8, 9
10. Explain special issues related to postretirement benefit plans.	10, 11, 12, 13	20, 21, 22	10

ASSIGNMENT CHARACTERISTICS TABLE

Item	Description	Level of Difficulty	Time (minutes)
E20-1	Pension expense, journal entries.	Simple	5–10
E20-2	Computation of pension expense.	Simple	5–10
E20-3	Preparation of pension worksheet with reconciliation.	Moderate	15–25
E20-4	Basic pension worksheet.	Simple	10–15
E20-5	Past service costs.	Moderate	5–10
E20-6	Computation of actual return.	Simple	10–15
E20-7	Basic pension worksheet.	Moderate	15–25
E20-8	Application of the corridor approach.	Moderate	20–25
E20-9	Disclosures: Pension expense and reconciliation schedule.	Moderate	25–35
E20-10	Pension worksheet with reconciliation schedule.	Moderate	20–25
E20-11	Pension expense, journal entry, statement presentation.	Moderate	20–30
E20-12	Pension expense, journal entry, statement presentation.	Moderate	20–30
E20-13	Computation of actual return, gains and losses, corridor test, past service cost, pension expense, and reconciliation.	Complex	35–45
E20-14	Worksheet for E20-13.	Complex	40–50
E20-15	Pension expense, journal entry.	Moderate	15–20
E20-16	Pension expense, statement presentation.	Moderate	30–45
E20-17	Reconciliation schedule and unrecognized loss.	Moderate	20–25
E20-18	Amortization of unrecognized net gain or loss (corridor approach), pension expense computation.	Moderate	25–35
E20-19	Amortization of unrecognized net gain or loss (corridor approach).	Moderate	30–40
E20-20	Other postretirement benefit expense computation.	Simple	10–12
E20-21	Other postretirement benefit worksheet.	Moderate	15–20
E20-22	Other postretirement benefit reconciliation schedule.	Simple	10–15
P20-1	Two-year worksheet and reconciliation schedule.	Moderate	40–50
P20-2	Three-year worksheet, journal entries, and reconciliation schedules.	Complex	45–55
P20-3	Pension expense, journal entry, amortization of unrecognized loss, reconciliation schedule.	Complex	40–50
P20-4	Pension expense, journal entries for two years.	Moderate	30–40
P20-5	Computation of pension expense, amortization of unrecognized net gain or loss (corridor approach), journal entries for three years.	Complex	45–55
P20-6	Computation of unrecognized past service cost amortization, pension expense, journal entries, net gain or loss, and reconciliation schedule.	Complex	45–60
P20-7	Pension worksheet.	Moderate	35–45

ASSIGNMENT CHARACTERISTICS TABLE (Continued)

Item	Description	Level of Difficulty	Time (minutes)
P20-8	Comprehensive 2-year worksheet.	Complex	45–60
P20-9	Comprehensive 2-year worksheet.	Moderate	40–45
P20-10	Postretirement benefit worksheet with reconciliation.	Moderate	30–35
CA20-1	Pension terminology and theory.	Moderate	30–35
CA20-2	Pension terminology.	Moderate	25–30
CA20-3	Basic terminology.	Simple	20–25
CA20-4	Major pension concepts.	Moderate	30–35
CA20-5	Implications of International Accounting Standard *(IAS) 19*.	Complex	50–60
CA20-6	Unrecognized gains and losses, corridor amortization.	Moderate	30–40
CA20-7	Non-vested employees—an ethical dilemma	Moderate	20–30

ANSWERS TO QUESTIONS

1. A **private pension plan** is an arrangement whereby a company undertakes to provide its retired employees with benefits that can be determined or estimated in advance from the provisions of a document or from the company's practices.

In a **contributory** pension plan the employees bear part of the cost of the stated benefits whereas in a **noncontributory** plan the employer bears the entire cost.

2. A **defined contribution plan** specifies the employer's contribution to the plan usually based on a formula, which may consider such factors as age, length of service, employer's profit, or compensation levels.

A **defined benefit plan** specifies a determinable pension benefit that the employee will receive at a time in the future. The employer must determine the amount that should be contributed now to provide for the future promised benefits.

In a **defined contribution plan,** the employer's obligation is simply to make a contribution to the plan each year based on the plan formula. The benefit of gain or risk of loss from assets contributed to the plan is borne by the employee. In a **defined benefit plan,** the employer's obligation is to make sufficient contributions each year to provide for the promised future benefits. Therefore, the employer is at risk to the extent that contributions will not be adequate to meet the promised benefits.

3. The **employer** is the organization sponsoring the pension plan. The employer incurs the costs and makes contributions to the pension fund. Accounting for the employer involves: (1) allocating the cost of the pension plan to the proper accounting periods, (2) measuring the amount of pension obligation resulting from the plan, and (3) disclosing the status and effects of the plan in the financial statements.

The **pension fund** or plan is the entity which receives the contributions from the employer, administers the pension assets, and makes the benefit payments to the pension recipients. Accounting for the fund involves identifying receipts as contributions from the employer sponsor, income from fund investments, and computing the amounts due to individual pension recipients. Accounting for the pension costs and obligations of the employer is the topic of this chapter; accounting for the pension fund is not.

4. When the term "fund" is used as a **noun,** it refers to assets accumulated in the hands of a funding agency for the purpose of meeting pension benefits when they become due. When the term "fund" is used as a **verb,** it means to pay over to a funding agency (as to fund future pension benefits or to fund pension cost).

5. An actuary's role is to ensure that the company has established an appropriate funding pattern to meet its pension obligations, to make predictions and assumptions about future events and conditions that affect pension costs, and to assist the accountant in measuring facets of the pension plan that must be reported (costs, liabilities and assets). In order to determine the company's pension obligation, the actuary must first determine the expected benefits that will be paid in the future. To accomplish this requires the actuary to make actuarial assumptions, which are estimates of the occurrence of future events affecting pension costs, such as mortality, withdrawals, disablement and retirement, changes in compensation, and changes in discount rates to reflect the time value of money.

6. In measuring the amount of pension benefits under a defined benefit pension plan, an actuary must consider such factors as mortality rates, employee turnover, interest and earnings rates, early retirement frequency, and future salaries.

7. One measure of the pension obligation is the **vested benefit obligation.** This measure uses only current salary levels and includes only vested benefits; that is, benefits the employee is already entitled to receive even if the employee renders no additional services under the plan.

A company's **accumulated benefit obligation** is the actuarial present value of benefits attributed by the pension benefit formula to service before a specified date and is based on employee service and compensation prior to that date. The accumulated benefit obligation differs from the projected benefit obligation in that it includes no assumption about future compensation levels. The **defined benefit obligation** is based on vested and nonvested services using future salaries.

8. **Cash-basis** accounting recognizes pension cost as being equal to the amount of cash paid by the employer to the pension fund in any period; pension funding serves as the basis for expense recognition under the cash basis.

Accrual-basis accounting recognizes pension cost as it is incurred and attempts to recognize pension cost in the same period in which the company receives benefits from the services of its employees.

Not infrequently, the amount which an employer must fund for pension purposes during a particular period is unrelated to the economic benefits derived from the pension plan in that period. Cash-basis accounting recognizes the amount funded as periodic pension cost and the amount funded may be discretionary and vary widely from year to year. Funding is a matter of financial management, based on working capital availability, tax considerations, and other matters unrelated to accounting considerations.

9. The five components of pension expense are:

(1) Service cost component—the actuarial present value of benefits attributed by the pension benefit formula to employee service during the period.

(2) Interest cost component—the increase in the defined benefit obligation as a result of the passage of time.

(3) Actual return on plan assets component—the reduction in pension cost for actual investment income from plan assets and the change in the fair value of plan assets.

(4) Amortization of past service cost—the cost of retroactive benefits granted in a plan amendment (including initiation of a plan).

(5) Gains and losses—a change in the value of either the defined benefit obligation or the plan assets resulting from experience different from that assumed or expected or from a change in an actuarial assumption.

Note to instructor: Regarding return on plan assets, the final component is expected rate of return. We are assuming above that an adjustment is made to the actual return to determine expected return.

10. The **service cost component** of pension expense is determined as the actuarial present value of benefits attributed by the pension benefit formula to employee service during the period. The plan's benefit formula provides a measure of how much benefit is earned and, therefore, how much cost is incurred in each individual period. The IASB concluded that future compensation levels had to be considered in measuring the present obligation and periodic pension expense if the plan benefit formula incorporated them.

11. The **interest component** is the interest for the period on the defined benefit obligation outstanding during the period. The assumed discount rate should reflect the rates at which pension benefits could be effectively settled (settlement rates). Other rates of return on high-quality fixed-income investments might also be employed.

12. **Service cost** is the actuarial present value of benefits attributed by the pension benefit formula to employee service during the period. Actuaries compute service cost at the present value of the new benefits earned by employees during the year. **Past service cost** is the cost of retroactive benefits granted in a plan amendment or initiation of a pension plan. The cost of the retroactive benefits is the increase in the defined benefit obligation at the date of the amendment.

13. When a defined benefit plan is either initiated or amended, credit is often given to employees for years of service provided before the date of initiation or amendment. The cost of these retroactive benefits are referred to as **past service costs.** Employers grant retroactive benefits because they expect to receive benefits in the future. As a result, past service cost should not be recognized as pension expense entirely in the year of amendment or initiation, but should be recognized during the service periods of those employees who are expected to receive benefits under the plan. Consequently, unrecognized past service cost is amortized over the remaining average period to vesting of employees who will receive benefits and is a component of net periodic pension expense each period.

14. **Liability gains and losses** are unexpected gains or losses from changes in the defined benefit obligation. Liability gains (resulting from unexpected decreases) and liability losses (resulting from unexpected increases) are deferred and combined in the Unrecognized Net Gain or Loss account. They are accumulated from year to year in a memo record account.

15. If pension expense recognized in a period exceeds the current amount funded, a liability account referred to as **Pension Liability** arises; the account would be reported either as a current or non-current liability, depending on the ultimate date of payment.

If the current amount funded exceeds the amount recognized as pension expense, an asset account referred to as **Pension Asset** arises; the account would be reported as a current asset if it is current in nature; if non-current, it would be reported in the other assets section. Often, one general account is used referred to as Pension Asset/Liability. If it has a credit balance, it is identified as a liability; if a debit balance, it is an asset.

16. Computation of actual return on plan assets

Fair value of plan assets at end of period		$10,150,000
Deduct: Fair value of plan assets at beginning of period		9,200,000
Increase in fair value of assets		950,000
Deduct: Contributions to plan during the period	$1,000,000	
Less benefits paid during the period	1,400,000	(400,000)
Actual return on plan assets		$ 1,350,000

17. An **asset gain** occurs when the actual return on the plan assets is greater than the expected return on plan assets while an **asset loss** occurs when the actual return is less than the expected return on the plan assets. A **liability gain** results from unexpected decreases in the pension obligation and a **liability loss** results from unexpected increases in the pension obligation.

18. **Corridor amortization** occurs when the accumulated unrecognized net gain or loss balance gets too large. The gain or loss is too large when it exceeds the arbitrarily selected IASB criterion of 10% of the larger of the beginning balances of the defined benefit obligation or the fair value of the plan assets. The excess unrecognized gain or loss balance may be amortized using any systematic method but the amortization cannot be less than the amount computed using the straight-line method over the average remaining service-life of active employees expected to receive benefits.

19. The IASB allows companies to immediately recognize actuarial gains and losses. If a company chooses immediate recognition, the actuarial gain or loss can either adjust net income or other comprehensive income.

20. No, Bill is not correct. Companies may use the corridor approach or the immediate recognition approach to recognize actuarial gains and losses. The amount of actuarial gains (losses) recognized under the two approaches will differ.

21. Jacob Inc. would report a pension liability of €27,000 (€125,000 – €98,000).

22. Joshua Co. would report a pension liability of £74,300 (£335,000 – £245,000 – £24,000 + £8,300).

23. (a) A **contributory plan** is a pension plan under which employees contribute part of the cost. In some contributory plans, employees wishing to be covered must contribute; in other contributory plans, employee contributions result in increased benefits.

(b) **Vested benefits** are benefits for which the employee's right to receive a present or future pension benefit is no longer contingent on remaining in the service of the employer.

(c) **Retroactive benefits** are benefits granted in a plan amendment (or initiation) that are attributed by the pension benefit formula to employee services rendered in periods prior to the amendment.

24. Compromises by the IASB to full capitalization or recognition in the financial statements of relevant pension data resulted in nonrecognition of the defined benefit obligation, plan assets, past service cost, and gains and losses. These unrecognized items are disclosed in a separate schedule in such a way that the total obligation and funded status (either over- or underfunded) of the pension plan are reconciled to the pension asset/liability reported in the statement of financial position by acknowledging the unrecognized pension elements (plan assets, past service cost, and deferred gains and losses).

25. **Postretirement benefits other than pensions** include healthcare and other welfare benefits provided to retirees, their spouses, dependents, and beneficiaries. The other welfare benefits include life insurance offered outside a pension plan, dental care as well as medical care, eye care, legal and tax services, tuition assistance, day care, and housing activities.

26. The major differences between pension benefits and postretirement benefits are listed below:

Differences between Postretirement Healthcare Benefits and Pensions

Item	Pensions	Healthcare Benefits
Funding	Generally funded.	Generally **NOT** funded.
Benefit	Well-defined and level dollar amount.	Generally uncapped and great variability.
Beneficiary	Retiree (maybe some benefit to surviving spouse).	Retiree, spouse, and other dependents.
Benefit Payable	Monthly.	As needed and used.
Predictability	Variables are reasonably predictable.	Utilization difficult to predict. Level of cost varies geographically and fluctuates over time.

Additionally, although healthcare benefits are generally covered by the fiduciary and reporting standards for employee benefit funds, in many jurisdictions the stringent minimum vesting, participation, and funding standards that apply to pensions do not apply to healthcare benefits.

27. A pension plan curtailment occurs when a company commits itself to substantially reduce the number of employees in a plan or to substantially reduce the benefits of an existing plan. Curtailments often have a significant effect on the financial statements and often occur from an isolated event, such as the closing of a plant, discontinuance of an operation, or termination or suspension of a plan. Curtailments are often linked with a restructuring of operations.

A settlement occurs when a company enters into a transaction that eliminates all further obligations for part or all of the benefits provided under a defined benefit plan. For example, by making a lump-sum cash payment to participants in a defined pension plan in exchange for their rights to receive specified benefits in the future, a settlement has occurred.

28. Companies recognize gains or losses on the curtailment or settlement of a defined benefit plan when the curtailment or settlement occurs. The gain or loss on a curtailment or settlement is comprised of the following: (1) any resulting change in the present value of the defined benefit obligation, (2) any resulting change in the fair value of the plan assets, and (3) any related actuarial gains and losses and past service cost that had not been previously recognized.

Where a curtailment relates to only some of the employees covered by a plan, or where only part of an obligation is settled:

- The gain or loss includes a proportionate share of the previously unrecognized past service cost and actuarial gains and losses.
- The proportionate share is determined on the basis of the present value of the obligations before and after the curtailment or settlement.

If a cash payment is made to employees affected by the curtailment, such that it eliminates all further obligations for benefits provided under the plan, a gain or loss may be recorded. This is referred to as a settlement.

29. The underlying concepts for the accounting for postretirement benefits are similar between U.S. GAAP and IFRS—both U.S. GAAP and IFRS view pensions and other postretirement benefits as forms of deferred compensation. Other similarities include: (1) IFRS and U.S. GAAP separate pension plans into defined contribution plans and defined benefit plans. The accounting for defined contribution plans is similar. (2) Both IFRS and U.S. GAAP compute unrecognized past service costs (PSC) in the same manner. (3) Both use corridor amortization for recognition on pension gains and losses.

Differences include: (1) IFRS recognizes any vested PSC amounts immediately and spreads unvested amounts over the average remaining period to vesting. U.S. GAAP amortizes PSC over the remaining service lives of employees. (2) Under IFRS, companies have the choice of recognizing actuarial gains and losses in income immediately (either net income or other comprehensive income) or amortizing them over the expected remaining working lives of employees. U.S. GAAP does not permit choice—using corridor amortization, actuarial gains and losses are recognized in “Accumulated other comprehensive income” and amortized to income over remaining service lives. (3) For defined benefit plans, U.S. GAAP recognizes a pension asset or liability as the funded status of the plan (i.e., defined benefit obligation minus the fair value of plan assets). IFRS recognizes the funded status, net of unrecognized past service cost and unrecognized gain or loss. (4) The accounting for pensions and other postretirement benefit plans is the same under IFRS. U.S. GAAP has separate standards for these types of benefits, and significant differences exist in the accounting.

30. The IASB and the FASB are working collaboratively on a postretirement benefits project. The FASB has issued GAAP rules addressing the recognition of the funded status of benefit plans in financial statements. The FASB has begun work on the second phase of the project, which will reexamine expense measurement of postretirement benefit plans. The IASB also has added a project in this area but on a different schedule. The IASB has already issued an exposure draft on expense measurement in pension plans. It is unclear whether the Boards' differences in schedule will lead to a converged standard.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 20-1

Service cost	HK$316,000,000
Interest on DBO	342,000,000
Return on plan assets	(371,000,000)
Amortization of unrecognized net loss	30,000,000
Pension expense	HK$317,000,000

BRIEF EXERCISE 20-2

Ending plan assets		$2,000,000
Beginning plan assets		1,680,000
Increase in plan assets		320,000
Deduct: Contributions	$120,000	
Less benefits paid	200,000	(80,000)
Actual return on plan assets		$ 400,000

BRIEF EXERCISE 20-3

UDDIN COMPANY

	General Journal Entries			Memo Record	
Items	Pension Expense	Cash	Pension Asset/ Liability	Defined Benefit Obligation	Plan Assets
1/1/10				250,000 Cr	250,000 Dr
Service cost	27,500 Dr			27,500 Cr	
Interest cost	25,000 Dr			25,000 Cr	
Actual return*	25,000 Cr				25,000 Dr
Contributions		20,000 Cr			20,000 Dr
Benefits				17,500 Dr	17,500 Cr
Journal entry	27,500 Dr	20,000 Cr	7,500 Cr		
12/31/10			7,500 Cr	285,000 Cr	277,500 Dr

*Note: We show actual return on the worksheet to ensure that plan assets are properly reported. If expected and actual return differ, then an additional adjustment is made to compute the proper amount of pension expense.

BRIEF EXERCISE 20-4

Pension Expense	61,000,000	
Pension Asset/Liability		9,000,000
Cash		52,000,000

BRIEF EXERCISE 20-5

2010 amortization:
$120,000 ÷ 4 yrs. = $30,000

BRIEF EXERCISE 20-6

2010 PSC amortization: €125,000 ÷ 5 = €25,000

Villa's 2010 and 2011 pension expense would be decreased by the €25,000 PSC amortization.

BRIEF EXERCISE 20-7

Unrecognized net loss	$475,000
Corridor (10% X $3,100,000)	310,000
Excess	165,000
Average remaining service life	÷ 7
Minimum amortization	$ 23,571

BRIEF EXERCISE 20-8

(1) Income Statement

Revenues	€125,000
Expenses	85,000
Pension expense (€14,000 + €750)	14,750
Net income	€ 25,250

(2) Statement of Comprehensive Income

Revenues	€125,000
Expenses	85,000
Pension expense (€14,750 – €750)	14,000
Net income	€ 26,000

BRIEF EXERCISE 20-8 (Continued)

Other comprehensive income	
Actuarial loss on defined benefit plan	750
Total comprehensive income	€25,250

BRIEF EXERCISE 20-9

Defined benefit obligation	€(510,000)
Plan assets at fair value	322,000
Funded status	(188,000)
Unrecognized past service cost	127,000
Pension asset/liability	€ (61,000)

BRIEF EXERCISE 20-10

Service cost	$40,000
Interest cost	52,400
Expected return on plan assets	(26,900)
Postretirement expense	$65,500

BRIEF EXERCISE 20-11

Postretirement Expense	240,900	
Cash		160,000
Postretirement Asset/Liability		80,900

BRIEF EXERCISE 20-12

Funded status	€180
Unrecognized actuarial gain (loss) (Credit) (€30 X .20)	6
Unrecognized past service costs (Debit) (€80 X .20)	(16)
Pension asset/liability	€170

Pension Asset/Liability	170	
Gain on Curtailment		170

BRIEF EXERCISE 20-13

Pension Asset/Liability..	154*	
Gain on Curtailment		154

Defined benefit obligation (Credit)........................	€(1,320)	(€1,500 – €180)
Fair value of plan assets (Debit)............................	1,350	
Funded status	30	
Unrecognized actuarial losses (Debit)..................	40	[€50 X (1 – .20)]
Unrecognized past service costs (Debit)..............	64	[€80 X (1 – .20)]
Pension asset/liability	€ 134	

*(€180 – €10 – €16)

SOLUTIONS TO EXERCISES

EXERCISE 20-1 (5–10 minutes)

(a) Computation of pension expense:

Service cost	$ 60,000
Interest cost ($500,000 X .10)	50,000
Expected return on plan assets	(12,000)
Unrecognized past service cost amortization	8,000
Pension expense for 2010	$106,000

(b)

Pension Expense	106,000	
Cash		95,000
Pension Asset/Liability		11,000

EXERCISE 20-2 (5–10 minutes)

Computation of pension expense:

Service cost	€ 90,000
Interest cost (€800,000 X 10%)	80,000
Expected return on plan assets	(64,000)
Unrecognized past service cost amortization	10,000
Pension expense for 2010	€116,000

EXERCISE 20-3 (15–25 minutes)

Rebekah Company
Pension Worksheet—2010

	General Journal Entries			Memo Record		
	Annual Pension Expense	Cash	Pension Asset/ Liability	Defined Benefit Obligation	Plan Assets	Unrecognized Past Service Cost
Balance, January 1, 2010			10,000 Cr.	800,000 Cr.	640,000 Dr.	150,000 Dr.
(a) Service cost	90,000 Dr.			90,000 Cr.		
(b) Interest cost	80,000 Dr.			80,000 Cr.		
(c) Actual return*	64,000 Cr.				64,000 Dr.	
(d) Amortization of PSC	10,000 Dr.					10,000 Cr.
(e) Contributions		105,000 Cr.			105,000 Dr.	
(f) Benefits				40,000 Dr.	40,000 Cr.	
Journal entry	116,000 Dr.	105,000 Cr.	11,000 Cr.			
Balance, January 31, 2010			21,000 Cr.	930,000 Cr.	769,000 Dr.	140,000 Dr.

(b) €80,000 = €800,000 X 10%.

Reconciliation Schedule

Defined benefit obligation	€(930,000)
Plan assets at fair value	769,000
Funded status	(161,000)
Unrecognized past service cost	140,000
Pension asset/liability	€ (21,000)

*Note: We show actual return on the worksheet to ensure that plan assets are properly reported. If expected and actual return differ, then an additional adjustment is made to compute the proper amount of pension expense.

EXERCISE 20-4 (10–15 minutes)

Trudy Borke Inc.
Pension Worksheet—2010

	General Journal Entries			Memo Record	
Items	Annual Pension Expense	Cash	Pension Asset/ Liability	Defined Benefit Obligation	Plan Assets
Balance, January 1, 2010				490,000 Cr.	490,000 Dr.
(a) Service cost	40,000 Dr.			40,000 Cr.	
(b) Interest cost	41,650 Dr.			41,650 Cr.	
(c) Actual return*	49,700 Cr.				49,700 Dr.
(d) Contributions		30,000 Cr.			30,000 Dr.
(e) Benefits				33,400 Dr.	33,400 Cr.
Journal entry, December 31	31,950 Dr.	30,000 Cr.	1,950 Cr.		
Balance, December 31, 2010			1,950 Cr.	538,250 Cr.	536,300 Dr.

(b) £41,650 = £490,000 X .085.

*Note: We show actual return on the worksheet to ensure that plan assets are properly reported. If expected and actual return differ, then an additional adjustment is made to compute the proper amount of pension expense.

EXERCISE 20-5 (5–10 minutes)

Plan B PSC amortization €318,000 ÷ 6 =	**€53,000**
Plan A PSC amortization €(160,000) ÷ 5 =	**(32,000)**
Total PSC amortization for 2010	**€21,000**

Merkel's pension expense in 2010 and 2011 would be increased by the €21,000 PSC amortization.

EXERCISE 20-6 (10–15 minutes)

Computation of Actual Return on Plan Assets

Fair value of plan assets at 12/31/10		**$2,725,000**
Fair value of plan assets at 1/1/10		**2,300,000**
Increase in fair value of plan assets		**425,000**
Deduct: Contributions to plan during 2010	**$250,000**	
Less benefits paid during 2010	**350,000**	**(100,000)**
Actual return on plan assets for 2010		**$ 525,000**

Doreen Corp.
Pension Worksheet—2010

	General Journal Entries			Memo Record		
Items	Annual Pension Expense	Cash	Pension Asset/ Liability	Defined Benefit Obligation	Plan Assets	Unrecognized Past Service Cost
Balance, January 1, 2010			13,800 Cr.	560,000 Cr.	546,200 Dr.	
(a) Prior service cost				100,000 Cr.		100,000 Dr.
New balance, January 1, 2010			13,800 Cr.	660,000 Cr.	546,200 Dr.	100,000 Dr.
(b) Service cost	58,000 Dr.			58,000 Cr.		
(c) Interest cost	59,400 Dr.			59,400 Cr.		
(d) Actual return*	52,280 Cr.				52,280 Dr.	
(e) Amortization of PSC	17,000 Dr.					17,000 Cr.
(f) Contributions		55,000 Cr.			55,000 Dr.	
(g) Benefits				40,000 Dr.	40,000 Cr.	
Journal entry, December 31	82,120 Dr.	55,000 Cr.	27,120 Cr.			
Balance, December 31, 2010			40,920 Cr.	737,400 Cr.	613,480 Dr.	83,000 Dr.

(c) $59,400 = $660,000 X .09.

*Note: We show actual return on the worksheet to ensure that plan assets are properly reported. If expected and actual return differ, then an additional adjustment is made to compute the proper amount of pension expense.

EXERCISE 20-8 (20–25 minutes)

Corridor and Minimum Loss Amortization

Year	Defined Benefit Obligation (a)	Plan Asset Value (a)	10% Corridor	Cumulative Unrecognized Net Loss (a)	Minimum Amortization of Loss
2010	¥2,000,000	¥1,900,000	¥200,000	¥ 0	¥ 0
2011	2,400,000	2,500,000	250,000	280,000	3,000 (b)
2012	2,900,000	2,600,000	290,000	367,000 (c)	6,417 (d)
2013	3,600,000	3,000,000	360,000	370,583 (e)	882 (f)

(a) As of the beginning of the year.
(b) (¥280,000 – ¥250,000) ÷ 10 years = ¥3,000
(c) ¥280,000 – ¥3,000 + ¥90,000 = ¥367,000
(d) (¥367,000 – ¥290,000) ÷ 12 years = ¥6,417
(e) ¥367,000 – ¥6,417 + ¥10,000 = ¥370,583
(f) (¥370,583 – ¥360,000) ÷ 12 years = ¥882

EXERCISE 20-9 (25–35 minutes)

(a) Note to financial statements disclosing components of 2010 pension expense:

Note X: Net pension expense for 2010 is composed of the following components of pension cost:

Service cost	€ 94,000
Interest cost	253,000
Expected return on plan assets	(175,680)
Past service cost amortization	45,000
Net pension expense	€216,320

(b) The following schedule reconciles the funded status of the plan with the amount reported in the statement of financial position at December 31, 2010:

Defined benefit obligation	€(2,737,000)
Plan assets at fair value	2,278,329
Funded status	(458,671)
Unrecognized past service cost	205,000
Unrecognized net loss	45,680
Pension liability	€ (207,991)

EXERCISE 20-10 (20–25 minutes)

(a)

Buhl Corp.
Pension Worksheet

	General Journal Entries			Memo Record			
Items	Annual Pension Expense	Cash	Pension Asset/ Liability	Defined Benefit Obligation	Plan Assets	Unrecognized Past Service Cost	Unrecognized Net Gain or Loss
Balance, January 1, 2010			45,000 Cr.	625,000 Cr.	480,000 Dr.	100,000 Dr.	
(a) Service cost	90,000 Dr.			90,000 Cr.			
(b) Interest cost	56,250 Dr.			56,250 Cr.			
(c) Actual return	57,000 Cr.				57,000 Dr.		
(d) Unexpected gain	5,000 Dr.						5,000 Cr.
(e) Amortization of PSC	19,000 Dr.					19,000 Cr.	
(f) Liability increase				76,000 Cr.			76,000 Dr.
(g) Contributions		99,000 Cr.			99,000 Dr.		
(h) Benefits				85,000 Dr.	85,000 Cr.		
Journal entry	113,250 Dr.	99,000 Cr.	14,250 Cr.				
Balance, December 31, 2010			59,250 Cr.	762,250 Cr.	551,000 Dr.	81,000 Dr.	71,000 Dr.

(b) $56,250 = $625,000 X .09.
(d) Expected return = $52,000.
Unexpected gain = Actual return minus expected return; $5,000 = $57,000 – $52,000.

(b) Reconciliation Schedule—12/31/10

Defined benefit obligation (Credit)	$(762,250)
Plan assets at fair value (Debit)	551,000
Funded status	(211,250)
Unrecognized past service cost (Debit)	81,000
Unrecognized net loss (Debit)	71,000
Pension Asset/Liability	$ (59,250)

Copyright © 2011 John Wiley & Sons, Inc. Kieso Intermediate: *IFRS Edition*, Solutions Manual

EXERCISE 20-11 (20–30 minutes)

(a) Pension expense for 2010 composed of the following:

Service cost	$ 56,000
Interest on defined benefit obligation (9% X $1,000,000)	90,000
Expected return on plan assets	(54,000)
Amortization of unrecognized gain or loss	0
Amortization of unrecognized past service cost	40,000
Pension expense	$132,000

(b)

Pension Expense	132,000	
Pension Asset/Liability	13,000*	
Cash		145,000
(To record pension expense and employer's contribution)		

*$145,000 – $132,000

(c) Income Statement:

Pension expense	$132,000

Statement of Financial Position:

Liabilities	
Pension asset/liability	$ 13,000

EXERCISE 20-12 (20–30 minutes)

(a) Pension expense for 2010 composed of the following:

Service cost	€ 77,000
Interest on defined benefit obligation (10% X €2,000,000)	200,000
Expected return on plan assets (10% X €800,000)	(80,000)
Amortization of unrecognized net gain or loss	0
Amortization of unrecognized past service cost	115,000
Pension expense	€312,000

EXERCISE 20-12 (Continued)

(b)	Pension Expense	312,000	
	Cash		250,000
	Pension Asset/Liability		62,000
	(To record pension expense and employer's contribution)		

(c) **Income Statement:**

Pension expense	€312,000

Statement of Financial Position:

Liabilities	
Pension asset/liability	€ 62,000

Note to instructor: To prove the amounts reported, a worksheet might be prepared as follows:

	Journal Entries			Memo Record			
	Annual Pension Expense	Cash	Pension Asset/ Liability	Defined Benefit Obligation	Plan Assets	Unrecognized Past Service Cost	Unrecognized Net Gain or Loss
Balance, Jan. 1, 2010			0	2,000,000 Cr.	800,000 Dr.	1,200,000 Dr.*	0
(a) Service cost	77,000 Dr.			77,000 Cr.			
(b) Interest cost	200,000 Dr.			200,000 Cr.			
(c) Actual return**	80,000 Cr.				80,000 Dr.		
(d) Amortization of PSC	115,000 Dr.					115,000 Cr.	
(e) Contributions		250,000 Cr.			250,000 Dr.		
(f) Liability gain				200,000 Dr.			200,000 Cr.
Journal entry, Dec. 31	312,000 Dr.	250,000 Cr.	62,000 Cr.				
Balance, Dec. 31, 2010			62,000 Cr.	2,077,000 Cr.	1,130,000 Dr.	1,085,000 Dr.	200,000 Cr.

*This number is a plug as the problem states there is no unrecognized gain or loss.

****Note:** We show actual return on the worksheet to ensure that plan assets are properly reported. If expected and actual return differ, then an additional adjustment is made to compute the proper amount of pension expense.

EXERCISE 20-13 (35–45 minutes)

(a) Actual Return = (Ending – Beginning) – (Contributions – Benefits)

Fair value of plan assets, December 31, 2010		£2,620
Deduct: Fair value of plan assets, January 1, 2010		1,700
Increase in fair value of plan assets		920
Deduct: Contributions	£800	
Less benefits paid	200	600
Actual return on plan assets in 2010		£ 320

(b) Computation of pension liability gains and losses and pension asset gains and losses.

1. Difference between 12/31/10 actuarially computed DBO and 12/31/11 recorded defined benefit obligation (DBO):

DBO at end of year		£3,645	
DBO per memo records:			
1/1/10 DBO	£2,800		
Add interest (10%)	280		
Add service cost	400		
Less benefit payments	(200)	3,280	
Liability loss			£365

2. Difference between actual fair value of plan assets and expected fair value:

12/31/10 actual fair value of plan assets		£2,620	
Expected fair value			
1/1/10 fair value of plan assets	£1,700		
Add expected return (£1,700 X 10%)	170		
Add contribution	800		
Less benefits paid	(200)	2,470	
Asset gain			(150)
Unrecognized net (gain) or loss			£215

(c) Because no unrecognized net gain or loss existed at the beginning of the period, no amortization occurs. Therefore, the corridor calculation is not needed. An example of how the corridor would have been computed is illustrated on the next page, assuming an unrecognized net loss of £240 at the beginning of the year.

EXERCISE 20-13 (Continued)

Beginning-of-the-Year

Year	DBO	Plan Assets (FV)	10% Corridor	Unrecognized Net Loss	Loss Amortization
2010	£2,800	£1,700	£280	£240	–0–

(d) Past service cost amortization: £1,100 X 1/10 = £110 per year.

(e) Pension expense for 2010:

Service cost	£400
Interest cost (£2,800 X 10%)	280
Actual return on plan assets [from (a)]	(320)
Unexpected gain [from (b)2.]	150
Amortization of past service cost	110
Pension expense for 2010	£620

(f) Reconciliation schedule:

Defined benefit obligation	£(3,645)
Fair value of plan assets	2,620
Funded status	(1,025)
Unrecognized past service cost (£1,100 – £110)	990
Unrecognized net (gain) or loss	215
Pension asset/liability	£ 180

EXERCISE 20-14 (40–50 minutes)

Linda Berstler Company
Pension Worksheet—2010

	General Journal Entries					Memo Record Entries	
Items	Annual Pension Expense	Cash	Pension Asset/ Liability	Defined Benefit Obligation	Plan Assets	Unrecognized Past Service Cost	Unrecognized Net Gain or Loss
Balance, Jan. 1, 2010			–0–	2,800 Cr.	1,700 Dr.	1,100 Dr.	
(a) Service cost	400 Dr.			400 Cr.			
(b) Interest cost	280 Dr.			280 Cr.			
(c) Actual return	320 Cr.				320 Dr.		
(d) Unexpected gain	150 Dr.						150 Cr.
(e) Amortization of PSC	110 Dr.					110 Cr.	
(f) Funding		800 Cr.			800 Dr.		
(g) Benefits				200 Dr.	200 Cr.		
(h) Liability change (increase)				365 Cr.			365 Dr.
Journal entry—2010	620 Dr.	800 Cr.	180 Dr.				
Balance, Dec. 31, 2010			180 Dr.	3,645 Cr.	2,620 Dr.	990 Dr.	215 Dr.

(b) £2,800 X 10%
(c) £320 = (£2,620 – £1,700) – (£800 – £200)
(d) Actual return £320
Expected return (£1,700 X 10%) 170
Asset gain £150
(e) £1,100 X 1/10 = £110
(h) £365 = £3,645 – (£2,800 + £400 + £280 – £200)

EXERCISE 20-14 (Continued)

Journal entries 12/31/10

Pension Expense	620	
Pension Asset/Liability	180	
Cash		800

Reconciliation Schedule

Defined benefit obligation	£(3,645)
Fair value of plan assets	2,620
Funded status	(1,025)
Unrecognized past service cost	990
Unrecognized net (gain) or loss	215
Pension asset/liability	£ 180

EXERCISE 20-15 (15–20 minutes)

(a) Computation of pension expense:

Service cost	$ 90,000
Interest cost ($700,000 X .10)	70,000
Expected return on plan assets	(15,000)
Pension expense for 2010	$145,000

Pension Expense	145,000	
Pension Asset/Liability	5,000	
Cash		150,000

(b) Reconciliation schedule:

Defined benefit obligation ($700,000 + $90,000 + $70,000)	$(860,000)
Fair value of plan assets	350,000
Funded status	(510,000)
Unrecognized net (gain) or loss	–0–
Pension asset/liability ($515,000 – $5,000)	(510,000)

EXERCISE 20-16 (30–45 minutes)

(a)/(b) **Journal Entries—2010**

Pension Expense	95,000	
Pension Asset/Liability	15,000*	
Cash		110,000

*Pension asset/liability at beginning of year	€ 0
Pension expense	(95,000)
Contribution	110,000
Pension asset at end of year	€ 15,000

Journal Entries—2011

Pension Expense	128,000	
Pension Asset/Liability	22,000	
Cash		150,000

*Pension asset/liability at beginning of year	€ 15,000
Pension expense	(128,000)
Contribution	150,000
Pension asset at end of year	€ 37,000

Journal Entries—2012

Pension Expense	130,000	
Cash		125,000
Pension Asset/Liability		5,000

*Pension asset at beginning of year	€ 37,000
Pension expense	(130,000)
Contribution	125,000
Pension asset at end of year	€ 32,000

	2010	2011	2012
Income Statement:			
Pension expense	€95,000	€128,000	€130,000
Statement of Financial Position:			
Assets			
Pension asset	€15,000	€ 37,000	€ 32,000

EXERCISE 20-17 (20–25 minutes)

(a) **Actuarial present value of benefit obligations:**

Defined benefit obligation	£(930,000)[a]
Plan assets at fair value	700,000[a]
Funded status	(230,000)
Past service cost not yet recognized in pension expense	120,000[a]
Pension asset/liability	£(110,000)

[a]All given.

(b) If an additional unrecognized loss is reported, it would decrease the pension asset/liability amount. The lower section of the reconciliation would be as follows: [Top part same as (a)]

Funded status	£(230,000)
Unrecognized net loss	16,000
Past service cost not yet recognized in pension expense	120,000
Pension asset/liability	£ (94,000)

(c) The past service cost not yet recognized in periodic expense should be deducted from the defined benefit obligation in excess of plan assets (funded status) because, for accounting purposes, it has not been recognized. As a result, the liability for accounting purposes is lower, and, therefore, to reconcile to this lower number, the past service cost not yet recognized must be deducted.

The unrecognized loss has either increased the defined benefit obligation or decreased the fair value of the plan assets, but has not been recognized for accounting purposes. As a result, the accounting obligation is lower by this amount. In reconciling from the funded status to the accounting liability, this unrecognized loss must be deducted.

EXERCISE 20-18 (25–35 minutes)

(a) The excess of the cumulative unrecognized net gain or loss over the corridor amount is amortized by dividing the excess by the average remaining service period of employees.

Amortization of Unrecognized Net (Gain) or Loss

(Gain) or Loss For the Year Ended December 31,	Amount
2010	300,000
2011	480,000
2012	(210,000)
2013	(290,000)

Year	Defined Benefit Obligation (a)	Plan Assets (a)	Corridor (b)	Cumulative Unrecognized (Gain) Loss (a)	Minimum Amortization of (Gain) Loss
2010	$4,000,000	$2,400,000	$400,000	$ 0	$ 0
2011	4,520,000	2,200,000	452,000	300,000	0
2012	4,980,000	2,600,000	498,000	780,000	20,143 (c)
2013	4,250,000	3,040,000	425,000	549,857 (d)	8,918 (e)

(a) As of the beginning of the year.
(b) The corridor is 10 percent of the greater of defined benefit obligation or plan assets.
(c) $780,000 – $498,000 = $282,000; $282,000/14 = $20,143.
(d) $780,000 – $20,143 – $210,000 = $549,857.
(e) $549,857 – $425,000 = $124,857; $124,857/14 = $8,918.

(b) Compare to results in (a),
2010 pension expense: No difference compared to (a).
2011 pension expense: No difference compared to (a).
2012 pension expense: $20,143 lower.
2013 pension expense: $8,918 lower.

EXERCISE 20-19 (30–40 minutes)

(a)

Year	Unrecognized Past Service Cost Amortized	
2010	$115,500	($1,155,000 ÷ 10 years)
2011	115,500	($1,155,000 ÷ 10 years)

EXERCISE 20-19 (Continued)

(b) The excess of the cumulative unrecognized net gain or loss over the corridor amount is amortized by dividing the excess by the average remaining service life per employee. The average service period to vesting is 10 years.

Amortization of Unrecognized Net (Gain) or Loss

(Gain) or Loss For the Year Ended December 31,	Amount
2010	$101,000
2011	(24,000)

Year	Defined Benefit Obligation (a)	Plan Assets (a)	10% Corridor (b)	Cumulative Unrecognized (Gain) Loss (a)	Minimum Amortization of (Gain) Loss
2010	$2,800,000	$1,700,000	$280,000	$ 0	$ –0–
2011	3,650,000	2,900,000	365,000	101,000	–0– (c)

(a) As of the beginning of the year.
(b) The corridor is 10 percent of the greater of the defined benefit obligation or plan assets.
(c) $365,000 is greater than $101,000; therefore, no amortization.

(c) Pension expense for 2010 composed of the following:

Service cost	$400,000
Interest on defined benefit obligation ($2,800,000 X 11%)	308,000
Expected return on plan assets ($1,700,000 X 10%)	(170,000)
Amortization of unrecognized past service cost	115,500
Pension expense	$653,500

Pension expense for 2011 composed of the following:

Service cost	$475,000
Interest on defined benefit obligation ($3,650,000 X 8%)	292,000
Expected return on plan assets ($2,900,000 X 10%)	(290,000)
Amortization of unrecognized past service cost	115,500
Pension expense	$592,500

EXERCISE 20-19 (Continued)

(d) 2010 pension expense: $653,500 + $101,000 = $754,500
2011 pension expense: $592,500 – $24,000 = $568,500

EXERCISE 20-20 (10–12 minutes)

Service cost	$ 90,000
Interest on defined benefit obligation (9% X $810,000)	72,900
Expected return on plan assets	(62,000)
Amortization of past service cost	3,000
Postretirement expense	$103,900

EXERCISE 20-21 (15–20 minutes)

See worksheet on next page.

EXERCISE 20-22 (10–15 minutes)

(a)

Defined benefit obligation (Credit)	€ (950,000)
Plan assets at fair value (Debit)	650,000
Funded status (Credit)	(300,000)
Unrecognized past service cost (Debit)	60,000
Postretirement benefit liability (Credit)	€ (240,000)

(b) (1)

Defined benefit obligation (Credit)	€ (950,000)
Plan assets at fair value (Debit)	650,000
Funded status (Credit)	(300,000)
Unrecognized past service cost (Debit)	60,000
Unrecognized loss (Debit)	20,000
Postretirement benefit liability (Credit)	€ (220,000)

(2)

Defined benefit obligation (Credit)	€ (950,000)
Plan assets at fair value (Debit)	650,000
Funded status (Credit)	(300,000)
Unrecognized past service cost (Debit)	60,000
Postretirement benefit liability (Credit)	€ (240,000)

EXERCISE 20-21 (15–20 minutes)

Marvelous Marvin Co.
Postretirement Benefits Worksheet—2010

	General Journal Entries			Memo Record		
Items	**Annual Post-retirement Expense**	**Cash**	**Postretirement Benefit Liability**	**Defined Benefit Obligation**	**Plan Assets**	**Unrecognized Past Service Cost**
Balance, Jan. 1, 2010			0	810,000 Cr.	710,000 Dr.	100,000 Dr.
(a) Service cost	90,000 Dr.			90,000 Cr.		
(b) Interest cost	*72,900 Dr.			72,900 Cr.		
(c) Actual return	62,000 Cr.				62,000 Dr.	
(d) Contributions		16,000 Cr.			16,000 Dr.	
(e) Benefits				40,000 Dr.	40,000 Cr.	
(f) Amortization:						
Past service cost	3,000 Dr.					3,000 Cr.
Journal entry for 2010	103,900 Dr.	16,000 Cr.	87,900 Cr.			
Balance, Dec. 31, 2010			87,900 Cr.	932,900 Cr.	748,000 Dr.	97,000 Dr.

*($810,000 X 9%)

TIME AND PURPOSE OF PROBLEMS

Problem 20-1 (Time 40–50 minutes)
Purpose—to provide a problem that requires preparation of a pension worksheet for two separate years' pension transactions accompanied with a reconciliation schedule at the end of the second year. Included in the problem are an unexpected loss and past service cost amortization.

Problem 20-2 (Time 45–55 minutes)
Purpose—to provide a problem that requires preparation of a pension worksheet for three separate years' pension transactions, three years of general journal entries for the pension plan, and a reconciliation schedule at the end of each year.

Problem 20-3 (Time 40–50 minutes)
Purpose—to provide a problem that requires computation of the annual pension expense, preparation of the pension journal entry, measurement of unrecognized gains and losses and their amortization, and preparation of a reconciliation schedule.

Problem 20-4 (Time 30–40 minutes)
Purpose—to provide a problem that requires computation of pension expense and preparation of the pension journal entry.

Problem 20-5 (Time 45–55 minutes)
Purpose—to provide a problem that requires computation of the pension expense for three separate years and the preparation of the pension journal entry for three years.

Problem 20-6 (Time 45–60 minutes)
Purpose—to provide a problem that requires computation and amortization of unrecognized past service cost, computation of pension expense, preparation of pension journal entry, and preparation of a reconciliation schedule.

Problem 20-7 (Time 35–45 minutes)
Purpose—to provide a problem that requires the preparation of a worksheet that shows the journal entry for pension expense.

Problem 20-8 (Time 45–60 minutes)
Purpose—to provide a problem that requires preparation of a comprehensive worksheet for two years, covering all facets of pension accounting.

Problem 20-9 (Time 40–45 minutes)
Purpose—to provide a problem that requires preparation of a worksheet for two years, journal entries, and a schedule reconciling funded status to pension asset/liability.

Problem 20-10 (Time 30–35 minutes)
Purpose—to provide a problem that requires preparation of a worksheet and a reconciliation schedule for postretirement benefit expense.

PROBLEM 20-1

(a)

Diana Peter Company
Pension Worksheet—2010 and 2011

	General Journal Entries			Memo Record			
Items	Annual Pension Expense	Cash	Pension Asset/ Liability	Defined Benefit Obligation	Plan Assets	Unrecognized Past Service Cost	Unrecognized Net Gain or Loss
Balance, Jan. 1, 2010				4,200,000 Cr.	4,200,000 Dr.		
(a) Service cost	150,000 Dr.			150,000 Cr.			
(b) Interest cost	420,000 Dr.			420,000 Cr.			
(c) Actual return	252,000 Cr.				252,000 Dr.		
(d) Funding		140,000 Cr.			140,000 Dr.		
(e) Benefits				200,000 Dr.	200,000 Cr.		
Journal entry, 12/31/10	318,000 Dr.	140,000 Cr.	178,000 Cr.				
Balance, Dec. 31, 2010			178,000 Cr.	4,570,000 Cr.	4,392,000 Dr.		
(f) Past service cost, 1/1/11				500,000 Cr.		500,000 Dr.	
				5,070,000 Cr.			
(g) Service cost	180,000 Dr.			180,000 Cr.			
(h) Interest cost	507,000 Dr.			507,000 Cr.			
(i) Actual return	260,000 Cr.				260,000 Dr.		
(j) Unexpected loss	91,360 Cr.						91,360 Dr.
(k) Amortization of PSC	90,000 Dr.					90,000 Cr.	
(l) Funding		185,000 Cr.			185,000 Dr.		
(m) Benefits				280,000 Dr.	280,000 Cr.		
Journal entry, 12/31/11	425,640 Dr.	185,000 Cr.	240,640 Cr.				
Balance, Dec. 31, 2011			418,640 Cr.	5,477,000 Cr.	4,557,000 Dr.	410,000 Dr.	91,360 Dr.

(b) €420,000 = €4,200,000 X 10%.
(h) €507,000 = €5,070,000 X 10%.
(j) € 91,360 = (€4,392,000 X .08) – €260,000.

(b) Reconciliation Schedule—12/31/11

Defined benefit obligation	€(5,477,000)
Fair value of plan assets	4,557,000
Funded status	(920,000)
Unrecognized past service cost	410,000
Unrecognized net (gain) or loss	91,360
Pension asst/liability	€ (418,640)

PROBLEM 20-2

(a)

Katie Day Company
Pension Worksheet—2010, 2011, 2012

	General Journal Entries			Memo Record			
	Annual Pension Expense	Cash	Pension Asset/ Liability	Defined Benefit Obligation	Plan Assets	Unrecognized Net Gain or Loss	Unrecognized Past Service Cost
Balance, Jan. 1, 2010				200,000 Cr.	200,000 Dr.		
(a) Service cost	16,000 Dr.			16,000 Cr.			
(b) Interest cost	20,000 Dr.			20,000 Cr.			
(c) Actual return	17,000 Cr.				17,000 Dr.		
(d) Unexpected loss	3,000 Cr.					3,000 Dr.	
(e) Contributions		16,000 Cr.			16,000 Dr.		
(f) Benefits				14,000 Dr.	14,000 Cr.		
Journal entry, 12/31/10	16,000 Dr.	16,000 Cr.					
Balance, Dec. 31, 2010				222,000 Cr.	219,000 Dr.	3,000 Dr.	
(g) Past service cost, 1/1/11				160,000 Cr.			160,000 Dr.
Balance, Jan. 1, 2011				382,000 Cr.	219,000 Dr.	3,000 Dr.	160,000 Dr.
(h) Service cost	19,000 Dr.			19,000 Cr.			
(i) Interest cost	38,200 Dr.			38,200 Cr.			
(j) Actual return	21,900 Cr.				21,900 Dr.		
(k) Amortization of PSC	54,400 Dr.						54,400 Cr.
(l) Contributions		40,000 Cr.			40,000 Dr.		
(m) Benefits				16,400 Dr.	16,400 Cr.		
Journal entry, 12/31/11	89,700 Dr.	40,000 Cr.	49,700 Cr.				
Balance, Dec. 31, 2011			49,700 Cr.	422,800 Cr.	264,500 Dr.	3,000 Dr.	105,600 Dr.
(n) Service cost	26,000 Dr.			26,000 Cr.			
(o) Interest cost	42,280 Dr.			42,280 Cr.			
(p) Actual return	24,000 Cr.				24,000 Dr.		
(q) Unexpected loss	2,450 Cr.					2,450 Dr.	
(r) Amortization of PSC	41,600 Dr.						41,600 Cr.
(s) Contributions		48,000 Cr.			48,000 Dr.		
(t) Benefits				21,000 Dr.	21,000 Cr.		
(u) Unexpected liability loss				49,920 Cr.		49,920 Dr.	
Journal entry, 12/31/12	83,430 Dr.	48,000 Cr.	35,430 Cr.				
Balance, Dec. 31, 2012			85,130 Cr.	520,000 Cr.	315,500 Dr.	55,370 Dr.	64,000 Dr.

PROBLEM 20-2 (Continued)

Worksheet computations:

- (b) $20,000 = $200,000 X 10%
- (d) $3,000 = ($200,000 X 10%) – $17,000; expected return exceeds actual return.
- (i) $38,200 = $382,000 X 10%
- (j) Expected return and actual return are the same.
- (o) $42,280 = $422,800 X 10%
- (q) $2,450 = ($264,500 X 10%) – $24,000; expected return exceeds actual return.

(Note to instructor: Because the amount of unrecognized net gain or loss does not exceed 10% of the larger of the defined benefit obligation or the fair value of the plan assets at the beginning of any of the years, no amortization is recorded.)

(b) Journal entries:

2010		
Pension Expense	16,000	
Cash		16,000
2011		
Pension Expense	89,700	
Cash		40,000
Pension Asset/Liability		49,700
2012		
Pension Expense	83,430	
Cash		48,000
Pension Asset/Liability		35,430

(c) Reconciliation Schedule 2011

Defined benefit obligation	$(222,000)
Fair value of plan assets	219,000
Funded status	(3,000)
Unrecognized net (gain) or loss	3,000
Pension asset/liability	$ 0

PROBLEM 20-2 (Continued)

Reconciliation Schedule 2011

Defined benefit obligation	$ (422,800)
Fair value of plan assets	264,500
Funded status	(158,300)
Unrecognized net (gain) or loss	3,000
Unrecognized past service cost	105,600
Pension asset/liability	$ (49,700)

Reconciliation Schedule 2012

Defined benefit obligation	$ (520,000)
Fair value of plan assets	315,500
Funded status	(204,500)
Unrecognized net (gain) or loss	55,370
Unrecognized past service cost	64,000
Pension asset/liability	$ (85,130)

PROBLEM 20-3

(a) Pension expense for 2010 comprises the following:

Service cost	£52,000
Interest on defined benefit obligation	
(10% X £350,000)	35,000
Actual return on plan assets	(11,000)
Unexpected loss	(9,000)*
Amortization of unrecognized gain or loss in 2011	0
Amortization of unrecognized past service cost	
(£150,000 ÷ 7.5 years)	20,000
Pension expense	£87,000

*([10% X £200,000] – £11,000)

(b) Journal Entry—2010

Pension Expense	87,000	
Cash		65,000
Pension Asset/Liability..................................		22,000

(c) <u>2010 Increase/Decrease in Unrecognized Gains/Losses</u>

(1) 12/31/10 new actuarially computed

DBO		£452,000	
Less: Defined benefit obligation per memo record:			
1/1/10 DBO	£350,000		
Add interest (10% X £350,000)	35,000		
Add service cost (given)	52,000		
Less benefit payments	0		
		437,000	
Liability loss			£15,000

PROBLEM 20-3 (Continued)

(2)

12/31/10 fair value of plan assets		£276,000	
Less: Expected fair value			
1/1/10 fair value of plan assets	£200,000		
Add expected return (10% X £200,000)	20,000		
Add pension plan contribution	65,000		
Less benefit payments	0		
		285,000	
Asset loss [£11,000 – (£200,000 X 10%)]			9,000
Unrecognized net loss at 12/31/10			£24,000

The £24,000 net loss in the Unrecognized Net Gain or Loss account becomes the beginning balance in 2011. The corridor at 1/1/11 is 10% of the greater of £452,000 (DBO) or £276,000 (fair value). Since the corridor of £45,200 is greater than the balance in the unamortized gain/loss account of £24,000, there will be no gain/loss amortization in 2011. It follows that no amortization occurs in 2010 because no balance existed in the Unrecognized Net Gain or Loss account at the beginning of 2010.

(d) Reconciliation of Pension-Related Amounts

	Dr (Cr)
Defined benefit obligation	£(452,000)
Fair value of plan assets	276,000
Funded status	(176,000)
Unrecognized net (gain) or loss	24,000
Unrecognized past service cost (£150,000 – £20,000)	130,000
Pension asset/liability	£ (22,000)

PROBLEM 20-4

(a) **Computation of pension expense:**

	2010	2011
Service cost	¥ 60,000	¥ 90,000
Interest cost (¥600,000 X .09)		
and (¥700,000 X .09)	54,000	63,000
Expected return on plan assets	(24,000)	(30,000)
Amortization of past service cost	10,000	12,000
Pension expense	¥100,000	¥135,000

(b)

	2010		2011	
Pension Expense	100,000		135,000	
Pension Asset/Liability	10,000			15,000
Cash		110,000		120,000

PROBLEM 20-5

(a) Pension expense for 2010 consisted only of the service cost component amounting to $55,000. There were no unrecognized past service cost, unrecognized net gain or loss, pension assets, or defined benefit obligation as of January 1, 2010.

Pension expense for 2011 comprised the following:

Service cost	$85,000
Interest on defined benefit obligation ($55,000 X 11%)	6,050
Expected return on plan assets ($50,000 X 10%)	(5,000)
Amortization of unrecognized net gain or loss[(1)]	0
Amortization of unrecognized past service cost	0
Pension expense	$86,050

Pension expense for 2012 comprised the following:

Service cost	$119,000
Interest on defined benefit obligation ($200,000 X 8%)	16,000
Expected return on plan assets ($85,000 X 10%)	(8,500)
Amortization of unrecognized net gain or loss[(1)]	5,329
Amortization of unrecognized past service cost	0
Pension expense	$131,829

(1)

Year	Defined Benefit Obligation (a)	Plan Assets (a)	Corridor (b)	Cumulative Unrecognized (Gain) Loss (a)	Minimum Amortization of (Gain) Loss
2010	$ 0	$ 0	$ 0	$ 0	$ 0
2011	55,000	50,000	5,500	0	0
2012	200,000	85,000	20,000	83,950	5,329 (c)

(a) As of the beginning of the year.
(b) The corridor is 10 percent of the greater of the defined benefit obligation or plan assets.
(c) $83,950 – $20,000 = $63,950; $63,950/12 = $5,329

PROBLEM 20-5 (Continued)

(b)

Journal Entry—2010

Pension Expense	55,000	
Cash		50,000
Pension Asset/Liability		5,000

Journal Entry—2011

Pension Expense	86,050	
Cash		60,000
Pension Asset/Liability		26,050

Journal Entry—2012

Pension Expense	131,829	
Cash		95,000
Pension Asset/Liability		36,829

(c)

2010 Journal Entry

Pension Expense	55,000	
Cash		50,000
Pension Asset/Liability		5,000

2011 Journal Entry

Pension Expense	170,000*	
Cash		60,000
Pension Asset/Liability		110,000

***($86,050 + $83,950)**

2012 Journal Entry

Pension Expense	212,621*	
Cash		95,000
Pension Asset/Liability		117,621

***($131,829 – $5,329 + $86,121)**

PROBLEM 20-6

(a) **Past Service Cost Amortization**

2010	€200,000	(€2,000,000 ÷ 10 years)
2011	200,000	(€2,000,000 ÷ 10 years)
2012	200,000	(€2,000,000 ÷ 10 years)

(b) Pension expense for 2010 comprised the following:

Service cost	€200,000
Interest on defined benefit obligation*	500,000
Actual return on plan assets**	(325,000)
Unexpected gain***	25,000
Amortization of unrecognized past service cost	200,000
Pension expense	€600,000

*(€5,000,000 X 10% = €500,000)
**[€3,900,000 – €3,000,000 – (€575,000 – €0)]
***(Expected return of €300,000 – actual return of €325,000 = €25,000 unexpected gain)

(c)

Pension asset/liability at beginning of year	€ 0
Pension expense	(600,000)
Contribution	575,000
Pension asset/liability at end of year	€ (25,000)

Journal Entries—2010

Pension Expense	600,000	
Pension Asset/Liability		25,000
Cash		575,000

PROBLEM 20-6 (Continued)

(d) 12/31/10 Fair value of plan assets			€3,900,000
Less: Expected fair value of assets			
1/1/10 fair value of plan assets		€3,000,000	
Add expected return (10% X €3,000,000)		300,000	
Add contributions to the plan		575,000	
Less benefits		0	3,875,000
Asset gain			(25,000)
12/31/10 New actuarially computed DBO		4,750,000	
Less: 1/1/10 DBO	€5,000,000		
Add interest (10% X €5,000,000)	500,000		
Add service cost	200,000		
Less benefits	0	5,700,000	
Liability gain			(950,000)
Unrecognized net gain 12/31/10			€ (975,000)

Amortization in 2010: <u>None</u> because there was no beginning balance.
Amortization in 2011 (corridor approach): $38,462

Year	Defined Benefit Obligation	Fair Value of Plan Assets	Corridor	Unrecognized Net (Gain)	Amortization
2010	€5,000,000	€3,000,000	€500,000	€ 0	€ 0
2011	4,750,000	3,900,000	475,000	(975,000)	38,462*

*€975,000 – €475,000 = €500,000; €500,000 ÷ 13 = €38,462

(e) **<u>Reconciliation Schedule 2010</u>**

Defined benefit obligation	€(4,750,000)
Fair value of plan assets	3,900,000
Funded status	(850,000)
Unrecognized past service cost (€2,000,000 – €200,000)	1,800,000
Unrecognized net (gain) or loss	(975,000)
Pension asset/liability	€ (25,000)

PROBLEM 20-7

Farber Corp.
Pension Worksheet—2010

	General Journal Entries			Memo Entries			
Item	Annual Pension Expense	Cash	Pension Asset/ Liability	Defined Benefit Obligation	Plan Assets	Unrecognized Past Service Cost	Unrecognized Net Gain or Loss
Balance, Jan. 1, 2010			33,000 Cr.	725,000 Cr.	520,000 Dr.	81,000 Dr.	91,000 Dr.
(a) Service cost	108,000 Dr.			108,000 Cr.			
(b) Interest cost	65,250 Dr.			65,250 Cr.			
(c) Actual return	48,000 Cr.				48,000 Dr.		
(d) Unexpected loss	4,000 Cr.						4,000 Dr.
(e) Amortization of PSC	25,000 Dr.					25,000 Cr.	
(f) Amortization of loss	1,850 Dr.						1,850 Cr.
(g) Contributions		138,000 Cr.			138,000 Dr.		
(h) Benefits				85,000 Dr.	85,000 Cr.		
Journal entry	148,100 Dr.	138,000 Cr.	10,100 Cr.				
Balance, Dec. 31, 2010			43,100 Cr.	813,250 Cr.	621,000 Dr.	56,000 Dr.	93,150 Dr.

(b) £65,250 = £725,000 X .09.

(d) £4,000 = (£520,000 X .10) – £48,000.

(f)

Year	1/1 Defined Benefit Obligation	Value of 1/1 Plan Assets	10% Corridor	Unrecognized Net Loss, 1/1	Minimum Amortization of Loss for 2010
2010	£725,000	£520,000	£72,500	£91,000	£1,850*

*£91,000 – £72,500 = £18,500; £18,500 ÷ 10 = £1,850.

PROBLEM 20-8

(a)

Glesen Company
Pension Worksheet—2010 and 2011

Item	Annual Pension Expense	Cash	Pension Asset/ Liability	Defined Benefit Obligation	Plan Assets	Unreognized Past Service Cost	Unrecognized Net Gain or Loss
	General Journal Entries			Memo Record			
Balance, Jan. 1, 2010			80,000 Cr.	650,000 Cr.	410,000 Dr.	160,000 Dr.	
(a) Service cost	40,000 Dr.			40,000 Cr.			
(b) Interest cost	65,000 Dr.			65,000 Cr.			
(c) Actual return	36,000 Cr.				36,000 Dr.		
(d) Unexpected loss	5,000 Cr.						5,000 Dr.
(e) Amortization of PSC	70,000 Dr.					70,000 Cr.	
(f) Contributions		72,000 Cr.			72,000 Dr.		
(g) Benefits				31,500 Dr.	31,500 Cr.		
(h) Liability loss				87,000 Cr.			87,000 Dr.
Journal entry for 2010	134,000 Dr.	72,000 Cr.	62,000 Cr.				
Balance, Dec. 31, 2010			142,000 Cr.	810,500 Cr.	486,500 Dr.	90,000 Dr.	92,000 Dr.
(i) Service cost	59,000 Dr.			59,000 Cr.			
(j) Interest cost	81,050 Dr.			81,050 Cr.			
(k) Actual return	61,000 Cr.				61,000 Dr.		
(l) Unexpected gain	12,350 Dr.						12,350 Cr.
(m) Amortization of PSC	55,000 Dr.					55,000 Cr.	
(n) Contributions		81,000 Cr.			81,000 Dr.		
(o) Benefits				54,000 Dr.	54,000 Cr.		
(p) Unrecognized loss amortization	548 Dr.						548 Cr.
Journal entry for 2011	146,948 Dr.	81,000 Cr.	65,948 Cr.				
Balance, Dec. 31, 2011			207,948 Cr.	896,550 Cr.	574,500 Dr.	35,000 Dr.	79,102 Dr.

PROBLEM 20-8 (Continued)

Worksheet computations:

(b) $65,000 = $650,000 X 10%.

(d) $5,000 = ($410,000 X 10%) – $36,000; expected return exceeds actual return.

(j) $81,050 = $810,500 X 10%.

(l) $12,350 = ($486,500 X 10%) – $61,000; actual return exceeds expected return.

(p) **2011 Corridor Test:**

Unrecognized net (gain) or loss at beginning of year	$92,000
10% of larger of DBO or fair value of plan assets	81,050
Amortizable amount	$10,950
2011 amortization ($10,950 ÷ 20 years)	$ 548

(b)

2010

Pension Expense	134,000	
Cash		72,000
Pension Asset/Liability		62,000

2011

Pension Expense	146,948	
Cash		81,000
Pension Asset/Liability		65,948

(c) **Pension Reconciliation Schedule—2011**

Defined benefit obligation	$(896,550)
Plan assets at fair value	574,500
Funded status	(322,050)
Unrecognized past service cost	35,000
Unrecognized net (gain) or loss	79,102
Pension asset/liability	$(207,948)

PROBLEM 20-9

(a) See worksheet on next page.

(b) December 31, 2010

Pension Expense	330,000	
Cash		150,000
Pension Asset/Liability		180,000

(c) See worksheet on next page. The entry is below.

December 31, 2011

Pension Expense	433,440	
Cash		184,658
Pension Asset/Liability		248,782

(d) See reconciliation schedule on next page.

(a)

Mount Company
Pension Worksheet—2010 and 2011

	General Journal Entries			Memo Record			
Items	Annual Pension Expense	Cash	Pension Asset/ Liability	Defined Benefit Obligation	Plan Assets	Unrecognized Past Service Cost	Unrecognized Net Gain or Loss
Balance, Jan. 1, 2010				4,500,000 Cr.	4,500,000 Dr.		
(a) Service cost	150,000 Dr.			150,000 Cr.			
(b) Interest cost	450,000 Dr.			450,000 Cr.			
(c) Actual return	252,000 Cr.				252,000 Dr.		
(d) Unexpected loss	18,000 Cr.						18,000 Dr.
(e) Funding		150,000 Cr.			150,000 Dr.		
(f) Benefits				220,000 Dr.	220,000 Cr.		
Journal entry, 12/31/10	330,000 Dr.	150,000 Cr.	180,000 Cr.				
Balance, Dec. 31, 2010			180,000 Cr.	4,880,000 Cr.	4,682,000 Dr.		18,000 Dr.
(g) Prior service cost, 1/1/11				600,000 Cr.		600,000 Dr.	
(h) Service cost	170,000 Dr.			170,000 Cr.			
(i) Interest cost	548,000 Dr.			548,000 Cr.			
(j) Actual return	250,000 Cr.				250,000 Dr.		
(k) Unexpected loss	124,560 Cr.						124,560 Dr.
(l) Amortization of PSC	90,000 Dr.					90,000 Cr.	
m) Funding		184,658 Cr.			184,658 Dr.		
(n) Benefits				280,000 Dr.	280,000 Cr.		
Journal entry, 12/31/11	433,440 Dr.	184,658 Cr.	248,782 Cr.				
			428,782 Cr.	5,918,000 Cr.	4,836,658 Dr.	510,000 Dr.	142,560 Dr.

(b) $450,000 = $4,500,000 X 10%.
(d) $18,000 = ($4,500,000 X 6%) – $252,000.
(i) $548,000 = ($4,880,000 + $600,000) X 10%.
(k) $124,560 = ($4,682,000 X .08) – $250,000.

(d) Reconciliation Schedule—12/31/11

Defined benefit obligation	$(5,918,000)
Fair value of plan assets	4,836,658
Unfunded DBO (funded status)	(1,081,342)
Unrecognized past service cost	510,000
Unrecognized net (gain) or loss	142,560
Pension asset/liability	$ (428,782)

PROBLEM 20-10

(a)

Dusty Hass Foods Inc.
Postretirement Benefits Worksheet—2010

	General Journal Entries			Memo Record		
Items	Net Periodic Postretirement Cost	Cash	Post-retirement benefit liability	Defined Benefit Obligation	Plan Assets	Unrecognized Net Gain or Loss
Balance, Jan. 1, 2010				200,000 Cr.	200,000 Dr.	
(a) Service cost	70,000 Dr.			70,000 Cr.		
(b) Interest cost	18,000 Dr.*			18,000 Cr.		
(c) Actual return	15,000 Cr.				15,000 Dr.	
(d) Unexpected gain	6,000 Dr.**					6,000 Cr.
(e) Contributions		60,000 Cr.			60,000 Dr.	
(f) Benefits				44,000 Dr.	44,000 Cr.	
Journal entry, Dec. 31	79,000 Dr.	60,000 Cr.	19,000 Cr.			
			19,000 Cr.	244,000 Cr.	231,000 Dr.	6,000 Cr.

*€200,000 X .09 = €18,000
**€15,000 – €9,000 = €6,000

(b) Reconciliation Schedule—December 31, 2010

Defined benefit obligation (Credit)	€(244,000)
Plan assets at fair value (Debit)	231,000
Funded status (Credit)	(13,000)
Unrecognized net gain or loss (Credit)	(6,000)
Postretirement benefit liability	€ (19,000)

(c) No amortization of the actuarial gain will be recorded in 2010 since there was no actuarial gain at the beginning of 2010. There would be no amortization of the unrecognized gain (€6,000) in 2011 because it is less than the corridor amount of €24,400 (€244,000 X .10).

TIME AND PURPOSE OF CONCEPTS FOR ANALYSIS

CA 20-1 (Time 30–35 minutes)
Purpose—to provide the student with the opportunity to discuss some of the more traditional issues related to pension reporting. Specifically, the student is asked to define a pension plan, distinguish between a funded and unfunded plan, differentiate between accounting for the employer and the pension fund. In addition, justification for accrual accounting must be developed, as well as a determination of the relative objectivity of the accrual versus the cash basis.

CA 20-2 (Time 25–30 minutes)
Purpose—to provide the student with the opportunity to discuss the terminology employed in ***IAS No. 19*****.** The student is required to explain the significance of such items as pension asset/liability, pension expense, and acturial loss as a component of accumulated other comprehensive income.

CA 20-3 (Time 20–25 minutes)
Purpose—to provide the student with the opportunity to discuss the reasons why accrual accounting is followed for pension reporting. In addition, certain terms are required to be explained and the proper footnote disclosures identified.

CA 20-4 (Time 30–35 minutes)
Purpose—to provide the student with the opportunity to study some of the implications of ***IAS No. 19*****.** The student is required to identify the five components of pension expense and how to report actuarial gains and losses.

CA 20-5 (Time 50–60 minutes)
Purpose—to provide the student with the opportunity to discuss the implications of ***IAS No. 19*****,** given a number of different factual situations. This case is quite thought-provoking and should stimulate a great deal of class discussion.

CA 20-6 (Time 30–40 minutes)
Purpose—to provide the student with the opportunity to explain unrecognized gains and losses, including the use of corridor amortization.

CA 20-7 (Time 20–30 minutes)
Purpose**—**to provide the student with the opportunity to consider the ethical implications of the impact of pension benefits and their impact on financial statements.

SOLUTIONS TO CONCEPTS FOR ANALYSIS

CA 20-1

(a) A private pension plan is an arrangement whereby a company undertakes to provide its retired employees with benefits that can be determined or estimated in advance from the provisions of a document or from the company's practices.

In a contributory pension plan the employees bear part of the cost of the stated benefits whereas in a noncontributory plan the employer bears the entire cost.

(b) The employer is the organization sponsoring the pension plan. The employer incurs the costs and makes contributions to the pension fund. Accounting for the employer involves: (1) allocating the cost of the pension plan to the proper accounting periods, (2) measuring the amount of pension obligation resulting from the plan, and (3) disclosing the status and effects of the plan in the financial statements.

The pension fund or plan is the entity which receives the contributions from the employer, administers the pension assets, and makes the benefit payments to the pension recipients. Accounting for the fund involves identifying receipts as contributions from the employer sponsor and as income from fund investments and computing the amounts due to individual pension recipients.

(c) 1. Relative to the pension fund the term "funded" refers to the relationship between pension fund assets and the present value of expected future pension benefit payments; thus, the pension fund may be fully funded or underfunded. Relative to the employer, the term "funded" refers to the relationship of the contributions made by the employer to the pension fund and the pension expense accrued by the employer; if the employer contributes annually to the pension fund an amount equal to the pension expense, the employer is fully funded.

2. Relative to the pension fund, the pension liability is an actuarial concept representing an economic liability under the pension plan for future cash payments to retirees. From the viewpoint of the employer, the pension liability is an accounting credit that results from an excess of amounts expensed over amounts contributed (funded) to the pension fund.

(d) 1. The theoretical justification for accrual recognition of pension costs is based on the expense recognition principle. Pension costs are incurred during the period over which an employee renders services to the enterprise; these costs may be paid upon the employee's retirement, over a period of time after retirement, as incurred through funding or insurance plans, or through some combination of any or all of these methods.

2. Although cash (pay-as-you-go) accounting is highly objective for the final determination of actual pension costs, it provides no measurement of annual pension costs as they are incurred. Accrual accounting provides greater objectivity in the annual measurement of pension costs than does cash accounting if actuarial funding methods are applied to actuarial valuations to determine the provision for pension costs. While cash accounting provides a more precise determination of the final cost, accrual accounting provides a more objective measure of the annual cost.

(e) Terms and their definitions as they apply to accounting for pension plans follow:

1. Service cost is the actuarial present value of benefits attributed by the pension benefit formula to employee service during that period. The service cost component is a portion of the defined benefit obligation and is unaffected by the funded status of the plan.

CA 20-1 (Continued)

2. Past service costs are the retroactive benefits granted in a plan amendment (or initiation). Retroactive benefits are benefits granted in a plan amendment (or initiation) that are attributed by the pension benefit formula to employee services rendered in periods prior to the amendment.

3. Vested benefits are benefits that are not contingent on the employee continuing in the service of the employer. In some plans the payment of the benefits will begin only when the employee reaches the normal retirement date; in other plans the payment of the benefits will begin when the employee retires (which may be before or after the normal retirement date). The actuarially computed value of vested benefits represents the present value: (a) the benefits expected to become payable to former employees who have retired, or who have terminated service with vested rights, at the date of determination; and (b) the benefits (based on service rendered prior to the date of determination) expected to become payable at future dates to present employees, taking into account the probable time that employees will retire.

CA 20-2

1. Pension asset/liability is the cumulative contributions in excess of accrued net pension expense. This item is reported in the asset section of the statement of financial position and is reduced when pension expense is greater than the contribution made to the fund during a period.

2. Pension asset/liability is the cumulative net pension expense accrued in excess of the employer's contributions. This item is reported in the liability section of the statement of financial position and is increased when pension expense is greater than the contribution made to the fund.

3. Actuarial loss as a component of Accumulated Other Comprehensive Income arises when the actual return on plan assets is less than the expected return and a company elects immediate recognition in OCI. They also arise from changes in the defined benefit obligation. This account should be reported in the equity section as a component of accumulated other comprehensive income. In addition, it should be shown as part of other comprehensive income.

4. Pension expense is the amount recognized in an employer's financial statements as the expense for a pension plan for the period. Components of pension expense are service cost, interest cost, expected return on plan assets, amortization of unrecognized gain or loss, and amortization of unrecognized past service cost.

CA 20-3

(a) 1. The theoretical justification for accrual recognition of pension costs is based on the expense recognition principle. Pension costs are incurred during the period over which an employee renders services to the enterprise; these costs may be paid upon the employee's retirement, over a period of time after retirement, as incurred through funding or insurance plans, or through some combination of any or all of these methods.

2. Although cash (pay-as-you-go) accounting is highly objective for the final determination of actual pension costs, it provides no measurement of annual pension costs as they are incurred. Accrual accounting provides greater objectivity in the annual measurement of pension costs than does cash accounting.

CA 20-3 (Continued)

(b) Terms and their definitions as they apply to accounting for pensions follow:

1. Fair value of pension assets, when based on a calculated value, is a moving average of pension plan asset values over a period of time. Considerable flexibility is permitted in computing this amount. In many cases, companies will undoubtedly use the actuarial asset value employed by the actuary as their fair value of pension assets for purposes of applying this concept to pension reporting.

2. The defined benefit obligation is the present value of vested and nonvested employee benefits accrued to date based on employees' future salary levels. This is the pension liability adopted by the IASB in IAS 19.

3. The corridor approach was developed by the IASB as the method for determining when to amortize the accumulated balance in the Unrecognized Net Gain or Loss account. The unrecognized net gain or loss balance is amortized when it exceeds the arbitrarily selected IASB criterion of 10% of the larger of the beginning-of-the-year balances of the defined benefit obligation or the fair value of the plan assets.

(c) The following disclosures about a company's pension plans should be made in the financial statements or the notes:

1. A description of the plan and the accounting policy for recognizing actuarial gains and losses.

2. A schedule showing all the major components of pension expense.

3. A reconciliation showing how the defined benefit obligation and the fair value of the plan assets changed from the beginning to the end of the period.

4. The funded status of the plan (difference between the DBO and fair value of the plan assets) and the amounts recognized and not recognized in the financial statements.

5. A disclosure of the rates used in measuring the benefit amounts (discount rate, expected return on plan assets, and rate of compensation).

6. A company's best estimate of the contributions expected to be made to the plan in the next year. A table indicating the allocation of pension plan assets by category (equity securities, debt securities, real estate, and other assets), and showing the percentage of the fair value to total plan assets. In addition, the actual return on plan is disclosed, as well as information on how the expected rate of return is determined.

CA 20-4

(a) Pension benefits are part of the compensation received by employees for their services. The actual payment of these benefits is deferred until after retirement. The pension expense measures this compensation and consists of the following five elements:

1. The service cost component is the present value of the benefits earned by the employees during the current period.

2. Since a pension represents a deferred compensation agreement, a liability is created when the plan is adopted. The interest cost component is the increase in that liability, the defined benefit obligation, due to the passage of time.

CA 20-4 (Continued)

3. In order to discharge the pension liability, an employer contributes to a pension fund. The return on the fund assets serves to reduce the interest element of the pension expense. Specifically, the expected return reduces pension expense. Expected return is the expected rate of return times the fair value of pension assets.

4. When a pension plan is adopted or amended, credit is often given for employee service rendered in prior years. This retroactive credit, or past service cost, is not recognized as pension expense entirely in the year the plan is adopted or amended, but should be recognized as pension expense over the time that the employees who benefited from this credit worked.

5. The gains and losses component arises from a change in the amount of either the defined benefit obligation or the plan assets. This component is amortized via corridor amortization.

(b) The major similarity between the vested benefit obligation and the defined benefit obligation is that they both represent the present value of the benefit attributed by the pension benefit formula to employee service rendered prior to a specific date. All things being equal, when an employee is about to retire, the vested benefit obligation will be equal to the defined benefit obligation.

The major difference between the vested benefit obligation and the defined benefit obligation is that the former is based on current salary levels and the latter is based on estimated future salary levels. Assuming salary increases over time, the defined benefit obligation should be higher than the vested benefit obligation.

(c) 1. Pension gains and losses, sometimes called actuarial gains and losses, result from changes in the value of the defined benefit obligation or the fair value of the plan assets. These changes arise from the deviations between the estimated conditions and the actual experience, and from changes in assumptions. The volatility of these gains and losses may reflect an unavoidable inability to predict compensation levels, length of employee service, mortality, retirement ages, and other relevant events accurately for a period, or several periods. Therefore, fully recognizing the gains or losses on the income statement may result in volatility that does not reflect actual changes in the funded status of the plan in that period.

2. In order to decrease the volatility of the reporting of the pension gains or losses, the IASB had adopted what is referred to as the “corridor approach.” This approach achieves the objective by amortization of the cumulative, unrecognized pension gains and losses, in excess of 10% of the greater of the defined benefit obligation or the fair value of the plan assets.

CA 20-5

1. This situation can exist because companies vary as to whether they are using an implicit or explicit set of assumptions when interest rates are disclosed. In the implicit approach, two or more assumptions do not individually represent the best estimate of the plan’s future experience with respect to these assumptions, but the aggregate effect of their combined use is presumed to be approximately the same as that of an explicit approach. In the explicit approach, each significant assumption reflecting the best estimate of the plan’s future experience solely with respect to that assumption must be stated. As a result, some companies are presently using an implicit approach, others an explicit approach. ***IAS 19*** requires the use of explicit assumptions. As a result, this large variance in interest rates will probably disappear to some extent. However, it should be noted that companies will have some leeway in establishing discount rates. In addition, the expected return on assets will also be different among companies.

CA 20-5 (Continued)

2. This situation will occur because of the pension liability required to be reported. That is, companies are required to report as a liability the excess of their defined benefit obligation over the fair value of plan assets and adjusted for unrecognized PSC and unexpected gains and losses. In the past, the basic liability companies reported was the excess of the amount expensed over the amount funded.

3. This statement is questionable. If a financial measure purports to represent a phenomenon that is volatile, the measure must show that volatility or it will not be representationally faithful. Nevertheless, many argue that volatility is inappropriate when dealing with such long-term measures as pensions. A good example of where dampening might be useful is the recognition of gains and losses. If assumptions prove to be accurate estimates of experience over a number of years, gains or losses in one year will be offset by losses or gains in subsequent periods, and amortization of unrecognized gains and losses would be unnecessary. The main point is that volatility per se should not be considered undesirable when establishing accounting principles. Although some managements may consider volatility bad, this belief should not influence standard-setting. However, it is clear from some of the compromises made in ***IAS 19*** that certain procedures were provided to dampen the volatility effect.

4. These pension plan assets in excess of the defined benefit obligation are not reported on the employer's books. However, the fair value of plan assets are required to be reported in the footnote, so that a reader of the financial statements can determine the funded status of the plan.

5. (a) In a defined contribution plan, the amount contributed is the amount expensed. No significant reporting problems exist here. On the other hand, defined benefit plans involve many difficult reporting issues which may lead to additional expense and liability recognition.

   Significant amendments will generally increase past service cost which may lead to significant adjustments to pension expense in the future.

   (b) Plan participants are of importance, because the expected future years of service computation can have an impact on the amortization of the past service cost and gains and losses.

   (c) If the plan is underfunded, pension expense will generally increase (all other factors constant). If the plan is overfunded, pension expense will generally decrease (all other factors constant). The reason is that the expected return on plan assets will be less if the plan is underfunded and vice versa.

   (d) If the company is using an actuarial funding method different than the one prescribed in ***IAS 19*** (straight-line approach), some changes in the computation of pension expense will occur for the company.

6. The corridor method is an approach which requires that only gains and losses in excess of 10% of the greater of the defined benefit obligation or fair value of pension assets be allocated. This excess is then amortized over the average remaining service period of current employees expected to participate in the plan.

   The corridor's purpose is to only recognize gains and losses above a certain amount, on the theory that gains and losses within the corridor will offset one another over time.

CA 20-6

(a) To: Rachel Avery, Accounting Clerk

From: Good Student, Manager of Accounting

Date: January 3, 2012

CA 20-6 (Continued)

Subject: Amortization of unrecognized gains and losses in pension expense

Pension expense includes several components; one occasionally included is the amortization of unrecognized gains/losses. These gains/losses occur for two reasons. First, the plan assets may provide a return that is either greater or less than what was expected. Second, changes in actuarial assumptions may create increases or decreases in the pension liability. If these gains/losses are small in relation to the defined benefit obligation (DBO) or the fair value of the plan assets (PA), then do not include them in annual pension expense.

If, in any given year, the gains or losses become too great, then at least a portion must be included in pension expense so as not to understate or overstate the annual obligation. This is done through a process called amortization.

To decide whether or not you should include gains/losses in annual pension expense, calculate 10 percent of either the DBO or the PA (whichever is greater) as a "corridor." Amortize the amount of any gain or loss falling outside the corridor over the average remaining service life of the active employees.
Note: these gains/losses must exist at the beginning of the year for which amortization takes place [see (a) on schedule below].

Thus, in the attached schedule, no amortization of the $280,000 loss in 2008 was required because the balance in the unrecognized gain/loss account at the beginning of that year was zero. However, at the beginning of 2009, the balance in that account was $280,000. The 10 percent corridor is $260,000, so the loss exceeds this corridor by $20,000. Since the remaining service life of employees is 10 years, you derive the amortized portion by dividing 10 into $20,000: $2,000 [see (b) on schedule below].

Note that the unamortized portion of the gain/loss from the previous year is combined with the current gain/loss. Check this new sum against a newly calculated 10 percent corridor. If the sum exceeds this corridor, then amortize the excess.

In the attached schedule, the unamortized loss from 2009 ($278,000) was added to the 2009 loss of $90,000, resulting in a cumulative unrecognized loss of $368,000 (see (c) below). This amount exceeds the new corridor ($290,000) by $78,000. However, the remaining service life has been changed to 12 years, resulting in annual amortization of only $6,500 [see (d) below].

Finally, if the losses from 2010 are added to the unamortized portion of the unrecognized loss from prior years, the sum falls within the 2011 corridor and does not need to be amortized at all.

Corridor and Minimum Loss Amortization Schedule

Year	Defined Benefit Obligation (a)	Plan Asset Value (a)	10% Corridor	Cumulative Unrecognized Net Loss (a)	Minimum Amortization of Loss
2008	$2,200,000	$1,900,000	$220,000	$ 0	$ 0
2009	2,400,000	2,600,000	260,000	280,000	2,000 (b)
2010	2,900,000	2,600,000	290,000	368,000 (c)	6,500 (d)
2011	3,900,000	3,000,000	390,000	373,500 (e)	0

CA 20-6 (Continued)

(1) As of the beginning of the year.
(2) (\$280,000 – \$260,000) ÷ 10 years = \$2,000
(3) \$280,000 – \$2,000 + \$90,000 = \$368,000
(4) (\$368,000 – \$290,000) ÷ 12 years = \$6,500
(5) \$368,000 – \$6,500 + \$12,000 = \$373,500

(b) Companies may choose to immediately recognize actuarial gains and losses in the period they arise. Immediate recognition of actuarial gains and losses will decrease or increase pension expense with a corresponding decrease (increase) in the pension asset/liability. The immediate recognition of a loss will cause both pension expense and the pension liability to be greater.

CA 20-7

While Selma may be correct in assuming that the termination of nonvested employees would decrease its pension-related liabilities and associated expenses, she is callous to suggest that firing employees is a reasonable approach to correcting the underfunding of College Electronix's pension plan. Arbitrarily dismissing productive employees on the basis of being vested or not vested in the pension plan in order to avoid capitalizing a liability and recognizing expenses is a capricious and unsound business decision.

Richard Nye should discuss the ethical, legal, and financial implications of the alternatives available as well as the accounting requirements relating to this situation. This obligation and its effect on the financial statements should have been known to Cardinal Technology when it performed its due diligence audit of CE at the time of merger negotiations. Cardinal Technology should capitalize the pension obligations of CE as required by IFRS.

FINANCIAL REPORTING PROBLEM

(a) M&S has funded pension plans (defined–benefit) for UK employees and the majority of employees oversees.

(b)

2008	**Pension expense**	**£50,800,000**
2007	**Pension expense**	**£91,100,000**

(c) Impact on 2008 financial statements: credit to pension expense increased net income by £50.8; actuarial gain of £605.4 on consolidated statement of recognized income and expense; net retirement benefit asset of £483.5; current liability of £50 for Partnership liability to the Marks & Spencer UK Pension Scheme; and long-term liability of £673.2 for Partnership liability to the Marks & Spencer UK Pension Scheme.

(d) M&S's Analysis of assets and expected rates of return portion of its pension footnote details the major categories of assets, which are property partnership interest; UK equities; overseas equities; government bonds; corporate bonds; and cash and other. In general, the expected long-term rate of return on these assets increases with an increase in risk for the asset. M&S's overall expected rate of return is 6.7%.

COMPARATIVE ANALYSIS CASE

(a) **Cadbury has defined-benefit plans for its UK employees and both defined-benefit and defined-contribution plans for overseas employees.**

Nestlé has both defined-benefit plans and defined-contribution plans.

(b) **Cadbury reported "post-retirement cost" of £73 million in 2008.**

Nestlé reported "defined-benefit expense" of CHF305 million in 2008.

(c) **2008 Funded Status (millions)**

Cadbury	**(£258)**
Nestlé	**(CHF5,404)**

(d) **Relevant rates used to compute pension information:**

	Cadbury
Discount rate—UK	**6.1%**
Discount rate—overseas	**3.50 – 6.75%**
Inflation rate—UK	**2.65%**
Overseas	**1.75 – 2.50%**
Salary increase—UK	**3.65%**
Overseas	**2.75 – 3.50%**

	Nestlé
Discount rate—Europe	**5.0%**
—Americas	**6.3%**
Expected long-term rate of return—Europe	**5.7%**
—Americas	**8.6%**
Expected rate of salary increase—Europe	**3.2%**
—Americas	**3.0%**

(e) **Cadbury paid benefits of £116 million in 2008 and made contributions to the pension plan of £84 million.**

Nestlé paid CHF1,368 million of benefits in 2008 and made contributions of CHF50 million to the pension plan.

INTERNATIONAL REPORTING CASE

(a) A key difference arises from recognition of Pension Asset/Liability at the funded status under U.S. GAAP; IFRS generally does not recognize PSC and pension gains and losses. In addition, under IFRS, PSC amortization periods are based on average period to vesting, which is usually shorter than service lives.

One other difference that students might note are the relatively high discount rate and expected return assumptions used by this U.S. company. For example, many U.S. companies use rates up to three times as high as the rates used by international companies.

It should be noted that there are several similarities. Under U.S. GAAP, the pension obligation is measured based on the projected (defined) benefit obligation and the amount recognized is based on an amount net of the liability and plan assets. There is smoothing of gains and losses. Also, the components of pension expense are similar.

(b) Under IFRS, shorter amortization periods will result in higher pension expense with respect to prior (past) service costs. Depending on whether the company has unrealized gains or losses, the shorter amortization period for the actuarial differences may result in either higher or lower reported income. On the statement of financial position, under U.S. GAAP there is less non-recognition of the prior (past) service costs and gains and losses. So the net pension asset or liability will be measured at the net of the liability and fund assets. The reported amounts on international companies' statement of financial positions will be more volatile, since the smoothing period is shorter.

(c) As indicated above, income and equity likely will be lower due to higher pension expense and lower net income. If there are significant asset gains (which is possible given the low expected return assumptions), then income could be higher as the gains are amortized into income more quickly. The lower discount rate used to measure the pension obligation will result in lower interest cost in income, but gives a higher measure of the projected (defined) benefit obligation.

Balance in DBO at 12/31/2011

Balance at 1/1/2011	€820.5
Interest cost: (€820.5 X 0.10) =	82.0
Service cost	42.0
Increase from actuarial assumptions	0.0
Benefits paid	(40.0)
	€904.5

Amount of plan assets at 12/31/2011

Balance at 1/1/2011	€476.5
Actual dollar return in 2011	10.4
Contributions in 2011	70.0
Benefits paid in 2011	(40.0)
	€516.9

Corridor test and amortization of net gain/loss

Corridor limit: 10% times greater of €820.5 and €476.5 =	€82.0
Excess of net G/L over corridor limit = €92.0 – €82.0 =	9.9
Amortization = €10 ÷ 15 =	0.7

Pension expense:

Interest cost = (€820.5 X 0.10) =	€82.0
Service cost	42.0
Amortization of unamortized past service cost =	15.0
Amortization of unamortized net loss	0.7
Expected return on plan assets: (€476.5 X 0.12) =	(57.2)
	€82.5

Balance in pension liability

Pension liability at 1/1/2011	(€102.0)
Pension expense in 2011	(82.5)
Contributions in 2011	70.0
	(€114.5)

Balance in Unamortized Past Service Cost at 12/31/2011

Balance at 1/1/2011	(€150.0)
Amortization in 2011	15.0
	(€135.0)

Balance in Unamortized Net Gain or Loss at 12/31/2011

Balance at 1/1/2011	(€92.0)
Gain (loss) due to actual return on plan assets below expected return	(46.8)
Amortization	0.7
	(138.1)

Journal entry:

Pension Expense	82.5	
Cash		70.0
Pension Asset/Liability		12.5

PENCOMP, INC.
Income Statement for the year ended Dec. 31, 2011

Revenues:		
Sales		€3,000.0
Expenses:		
Cost of goods sold	€2,000.0	
Salary expense	700.0	
Pension expense	82.5	
Depreciation expense	80.0	
Interest expense	100.0	
Total expenses and losses		2,962.5
Net income		€ 37.5

PENCOMP, INC.
Statement of Financial Position at Dec. 31, 2011

Assets:		
Plant, and equip.	€ 2,000	
Accumulated dep.	(320)	
		€ 1,680
Inventory	1,800	
Cash	368	
		2,168
Total Assets		€ 2,848
Equity:		
Share capital	€2,000.0	
Retained earnings	733.5	
Total Equity		€2,733.5
Liabilities:		
Note payable	1,000.0	
Pension liability	114.5	
Total Liabilities		1,114.5
Total Equity & Liabilities		€3,848.0

Plant and equip. = no change from previous statement of financial position.
Accumulated depreciation = €(240) + €(2,000 ÷ 25) = €320

Determination of non-pension balances:
Inventory = €1,800 given
Cash = €438 – €700 + €3,000 – €2,000 – €100 – €200 – €70 = €368

Note payable = no change from previous statement of financial position.

Share capital = no change from previous statement of financial position.

Retained earnings = €896.0 + €37.5 – €200 = €733.5

ACCOUNTING, ANALYSIS, AND PRINCIPLES (Continued)

ANALYSIS

ROE = €37.5 ÷ €2,733.5 = 0.0173 or 1.37%.

In this example, only the unexpected return on plan assets ‘skipped’ the income statement and went to other comprehensive income. Had this item been included in income, ROE would have been = (€42.5 – €46.8) ÷ €2,460.4 = –0.0017 or –0.17 percent. Whether this ‘should’ be included in a return on equity calculation is debatable. The rationale for excluding this from current period income (and therefore from ROE) is that a defined benefit pension plan is a long-term contract and so it is the long term expected return on the plan’s assets that is relevant to measuring the cost of sponsoring the plan. Some people believe that a particularly high or low return in a given year is not indicative of the long-term return. Others argue that all returns, high or low, accrue to the plan sponsor and so pension expense should reflect all returns.

PRINCIPLES

The effects of plan amendments and actuarial gains and losses in a given year can be thought of as fairly transitory items with respect to income. In other words, these are items that are not likely to repeat at the same dollar amount year in and year out. Including these items in income arguably makes identifying the company’s ‘permanent’ income more difficult. Therefore, the IASB have (so far!) decided to keep those items out of the income statement.

PROFESSIONAL RESEARCH

(a) According to IAS 19, paragraph 105, “The expected return on plan assets is one component of the expense recognised in profit or loss. The difference between the expected return on plan assets and the actual return on plan assets is an actuarial gain or loss; it is included with the actuarial gains and losses on the defined benefit obligation in determining the net amount that is compared with the limits of the 10% ‘corridor’ specified in paragraph 92.”

(b) Paragraph 95 states “In the long term, actuarial gains and losses may offset one another. Therefore, estimates of post-employment benefit obligations may be viewed as a range (or ‘corridor’) around the best estimate. An entity is permitted, but not required, to recognise actuarial gains and losses that fall within that range. This Standard requires an entity to recognise, as a minimum, a specified portion of the actuarial gains and losses that fall outside a ‘corridor’ of plus or minus 10%. [Appendix A illustrates the treatment of actuarial gains and losses, among other things.] The Standard also permits systematic methods of faster recognition, provided that those methods satisfy the conditions set out in paragraph 93. Such permitted methods include, for example, immediate recognition of all actuarial gains and losses, both within and outside the ‘corridor’. Paragraph 155(b)(iii) explains the need to consider any unrecognised part of the transitional liability in accounting for subsequent actuarial gains.”

(c) According to paragraph 54, “The amount recognised as a defined benefit liability shall be the net total of the following amounts:

(1) the present value of the defined benefit obligation at the end of the reporting period (see paragraph 64);
(2) plus any actuarial gains (less any actuarial losses) not recognised because of the treatment set out in paragraphs 92 and 93;
(3) minus any past service cost not yet recognised (see paragraph 96);
(4) minus the fair value at the end of the reporting period of plan assets (if any) out of which the obligations are to be settled directly (see paragraphs 102–104).”

PROFESSIONAL RESEARCH (Continued)

Further, as stated in paragraph 58, "The amount determined under paragraph 54 may be negative (an asset). An entity shall measure the resulting asset at the lower of:

(1) the amount determined under paragraph 54; and

(2) the total of:

(i) any cumulative unrecognised net actuarial losses and past service cost (see paragraphs 92, 93 and 96); and

(ii) the present value of any economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan. The present value of these economic benefits shall be determined using the discount rate specified in paragraph 78."

PROFESSIONAL SIMULATION

Measurement

(a)

	A	B	C	D	E	F	G	H	I	J	K
8		Expense	Cash	Pen. Asset/Liab.		DBO	Assets	PSC	UR G-L		
9	Beg. Balance			(45,000)		(625,000)	480,000	100,000			
10	Service Cost	90,000				(90,000)					
11	Int on Liab.	56,250				(56,250)					
12	EXP/ACT Return	(52,000)					57,000		(5,000)		
13	Contributions		(99,000)				99,000				
14	Benefits					85,000	(85,000)				
15	PSC Amort.	19,000						(19,000)			
16	UR Gain / Loss					(76,000)			76,000		
17	Change in Pen. Asset/Liab.			(14,250)							
18											
19	Ending Balance	113,250	(99,000)	(59,250)		(762,250)	551,000	81,000	71,000		

The following formula is inserted in this cell=0.09*F9*(-1)

The following formula is inserted in this cell:=+F9+G9+H9

The following formula is inserted into this cell:=+B10*-1

The following formula is inserted in this cell: =(G12+B12)*-1

The following function is entered into this cell:=SUM(B9:B17)

The following formula is entered into this cell:=D19-D9

The following formula is inserted into this cell:=+B11*-1

The following function is entered into this cell:=SUM(F19:I19)

(b) Simply change the formula in cell B11 to multiply by .07; change the formula in cell B12 to multiply .10 times (G-9 * –1).

Journal Entry

Pension Expense	113,250	
Pension Asset/Liability		14,250
Cash		99,000

Disclosure

Defined Benefit Obligation	$(762,250)
Plan Assets at Fair Value	551,000
Funded Status	(211,250)
Unrecognized Past Service Cost	81,000
Unrecognized Gain or Loss	71,000
Pension Asset/Liability	$ (59,250)

CHAPTER 21

Accounting for Leases

ASSIGNMENT CLASSIFICATION TABLE (BY TOPIC)

	Topics	Questions	Brief Exercises	Exercises	Problems	Concepts for Analysis
1.	Rationale for leasing.	1, 2, 4				1, 2
2.	Lessees; classification of leases; accounting by lessees.	3, 5, 7, 8, 14, 20, 22	1, 2, 3, 4, 5	1, 2, 3, 5, 7, 8, 11, 12, 13, 14	1, 2, 3, 4, 6, 7, 8, 9, 11, 12, 14, 15, 16	1, 2, 3, 4, 5, 6
3.	Disclosure of leases.	19, 21			4, 5, 7, 8	2, 5
4.	Lessors; classification of leases; accounting by lessors.	6, 9, 10, 11, 12, 13	6, 7, 8, 11	4, 5, 6, 7, 9, 10, 12, 13, 14	1, 2, 3, 5, 10, 13, 14, 16	2, 4
5.	Residual values; bargain-purchase options; initial direct costs.	15, 16, 17, 18	9, 10	4, 8, 9, 10	6, 7, 10, 11, 13, 14, 15, 16	5, 6
*6.	Sale-leaseback.	23	12	15, 16		7, 8

*This material is dealt with in an Appendix to the chapter.

ASSIGNMENT CLASSIFICATION TABLE (BY LEARNING OBJECTIVE)

Learning Objectives	Brief Exercises	Exercises	Problems
1. Explain the nature, economic substance, and advantages of lease transactions.			
2. Describe the accounting criteria and procedures for capitalizing leases by the lessee.	1, 2, 3, 4	1, 2, 3, 5, 11	1, 3, 4, 6, 7, 8, 9, 11, 12, 14, 15, 16
3. Contrast the operating and capitalization methods of recording leases.	5	5, 12, 13, 14	2, 15
4. Identify the classifications of leases for the lessor.	6, 7, 8	12, 13, 14	2, 10, 13, 16
5. Describe the lessor's accounting for direct-financing leases.	6, 7	4, 10	5
6. Identify special features of lease arrangements that cause unique accounting problems.	9, 10	8, 9	4, 9, 11, 12
7. Describe the effect of residual values, guaranteed and unguaranteed, on lease accounting.	9, 10	3, 8	6, 10, 11, 13, 14, 15, 16
8. Describe the lessor's accounting for sales-type leases.	11	6, 7	1, 3, 10, 13
9. List the disclosure requirements for leases.			3, 4, 5, 7, 8
*10. Understand and apply lease accounting concepts to various lease arrangements.			
*11. Describe the lessee's accounting for sale-leaseback transactions.	12	15, 16	

ASSIGNMENT CHARACTERISTICS TABLE

Item	Description	Level of Difficulty	Time (minutes)
E21-1	Lessee entries, finance lease with unguaranteed residual value.	Moderate	15–20
E21-2	Lessee computations and entries, finance lease with guaranteed residual value.	Moderate	20–25
E21-3	Lessee entries, finance lease with executory costs and unguaranteed residual value.	Moderate	20–30
E21-4	Lessor entries, direct-financing lease with option to purchase.	Moderate	20–25
E21-5	Type of lease, amortization schedule.	Simple	15–20
E21-6	Lessor entries, sales-type lease.	Moderate	15–20
E21-7	Lessee-lessor entries, sales-type lease.	Moderate	20–25
E21-8	Lessee entries with bargain-purchase option.	Moderate	20–30
E21-9	Lessor entries with bargain-purchase option.	Moderate	20–30
E21-10	Computation of rental, journal entries for lessor.	Moderate	15–25
E21-11	Amortization schedule and journal entries for lessee.	Moderate	20–30
E21-12	Accounting for an operating lease.	Simple	10–20
E21-13	Accounting for an operating lease.	Simple	15–20
E21-14	Operating lease for lessee and lessor.	Simple	15–20
*E21-15	Sale-leaseback.	Moderate	20–30
*E21-16	Lessee-lessor, sale-leaseback.	Moderate	20–30
P21-1	Lessee-lessor entries-sales-type lease.	Simple	20–25
P21-2	Lessee-lessor entries, operating lease.	Simple	20–30
P21-3	Lessee-lessor entries, financial statement presentation; sales-type lease.	Moderate	35–45
P21-4	Statement of financial position and income statement disclosure—lessee.	Moderate	30–40
P21-5	Statement of financial position and income statement disclosure—lessor.	Moderate	30–40
P21-6	Lessee entries with residual value.	Moderate	25–35
P21-7	Lessee entries and statement of financial position presentation, finance lease.	Moderate	25–30
P21-8	Lessee entries and statement of financial position presentation, finance lease.	Moderate	20–30
P21-9	Lessee entries, finance lease with monthly payments.	Moderate	20–30
P21-10	Lessor computations and entries, sales-type lease with unguaranteed residual value.	Complex	30–40
P21-11	Lessee computations and entries, finance lease with unguaranteed residual value.	Complex	30–40
P21-12	Basic lessee accounting with difficult PV calculation.	Moderate	40–50
P21-13	Lessor computations and entries, sales-type lease with guaranteed residual value.	Complex	30–40

ASSIGNMENT CHARACTERISTICS TABLE (Continued)

Item	Description	Level of Difficulty	Time (minutes)
P21-14	Lessee computations and entries, finance lease with guaranteed residual value.	Complex	30–40
P21-15	Operating lease vs. finance lease.	Moderate	30–40
P21-16	Lessee-lessor accounting for residual values.	Complex	30–40
CA21-1	Lessee accounting and reporting.	Moderate	15–25
CA21-2	Lessor and lessee accounting and disclosure.	Moderate	25–35
CA21-3	Lessee capitalization criteria.	Moderate	20–30
CA21-4	Comparison of different types of accounting by lessee and lessor.	Moderate	15–25
CA21-5	Lessee capitalization of bargain-purchase option.	Moderate	30–35
CA21-6	Lease capitalization, bargain-purchase option	Moderate	20–25
*CA21-7	Sale-leaseback.	Moderate	15–25
*CA21-8	Sale-leaseback.	Moderate	20–25

ANSWERS TO QUESTIONS

1. The major lessor groups are banks, captive leasing companies, and independents. Captive leasing companies have the point of sale advantage in finding leasing customers; that is, as soon as a parent receives a possible order, a lease financing arrangement can be developed by its leasing subsidiary. Furthermore, the captive lessor has the product knowledge which gives it an advantage when financing the parents' product. The current trend is for captives to focus on the company's products rather than to do general lease financings.

2. (a) Possible advantages of leasing:
1. Leasing permits the write-off of the full cost of the assets (including any land and residual value), thus providing a possible tax advantage.
2. Leasing may be more flexible in that the lease agreement may contain less restrictive provisions than the bond indenture.
3. Leasing permits 100% financing of assets.
4. Leasing may permit more rapid changes in equipment, reduce the risk of obsolescence, and pass the risk in residual value to the lessor or a third party.
5. Potential of off-balance-sheet financing with certain types of leases.

Assuming that funds are readily available through debt financing, there may not be great advantages (in addition to the above-mentioned) to signing a non-cancelable, long-term lease. One of the usual advantages of leasing is its availability when other debt financing is unavailable.

(b) Possible disadvantages of leasing:
1. In an ever-increasing inflationary economy, retaining title to assets may be desirable as a hedge against inflation.
2. Interest rates for leasing often are higher and a profit factor may be included in addition.
3. In some cases, owning the asset provides unique tax advantages, such as when bonus depreciation is permitted.

(c) Since a long-term non-cancelable lease which is used as a financing device generally results in the capitalization of the leased assets and recognition of the lease commitment in the statement of financial position, the comparative effect is not very different from purchase and ownership. Assets leased under such terms would be capitalized at the present value of the future lease payments; this value is probably somewhat equivalent to the purchase price of the assets. Bonds sold at par would be nearly equivalent to the present value of the future lease payments; in neither case would interest be capitalized. The amounts presented in the statement of financial position would be quite comparable as would the general classifications; the specific labels (leased assets and lease liability) would be different.

3. Lessees have available two lease accounting methods: (a) the operating method and (b) the finance-lease method. Under the operating method, the leased asset remains the property of the lessor with the payment of a lease rental recognized as rental expense. Generally the lessor pays the insurance, taxes, and maintenance costs related to the leased asset. Under the finance-lease method, the lessee treats the lease transaction as if an asset were being purchased on credit; therefore, the lessee: (1) sets up an asset and a related liability and (2) recognizes depreciation of the asset, reduction of the liability, and interest expense.

4. Ballard Company's rental of warehousing space on a short-term and sporadic basis is seldom construed as the acquisition of an asset or even a financing arrangement. The contract consists mainly of services which are to be performed proportionately by the lessor and the lessee—the rent to be paid by the lessee is offset by the service to be performed by the lessor. While a case can be made for the existence of an acquisition of some property rights, be they ever so trifling, the accounting treatment would be to record only the periodic rental payments as they are made and to allocate rent expense to the periods in which the benefits are received. No asset would be capitalized in this case, and an liability for lease payments would be recorded only to the extent that services received from the lessor exceeded the rentals paid; that is, the rent payment is overdue. This lease should be reported as an operating lease.

5. Minimum rental payments are the periodic payments made by the lessee and received by the lessor. These payments may include executory costs (such as maintenance, taxes, and insurance.) Minimum lease payments are payments required or expected to be made by the lessee. They include minimum rental payments (less executory costs), a bargain purchase option, a guaranteed residual value, and a penalty for failure to renew the lease. The present value of the minimum lease payments is capitalized by the lessee.

6. The distinction between a direct-financing lease and a sales-type lease is the presence or absence of a manufacturer's or dealer's profit. A sales-type lease involves a manufacturer's or dealer's profit, and a direct-financing lease does not. The profit is the difference between the fair value of the leased property at the inception of the lease and the lessor's cost or carrying value.

7. Under the operating method, a rent expense (and a compensating liability) accrues day by day to the lessee as the property is used. The lessee assigns rent to the periods benefiting from the use of the asset and ignores in the accounting any commitments to make future payments. Appropriate accruals are made if the accounting period ends between cash payment dates.

8. Under the finance-lease method, the lessee treats the lease transactions as if the asset were being purchased on an installment basis: a financial transaction in which an asset is acquired and a liability is created. The asset and the liability are stated in the lessee's statement of financial position at the lower of: (1) the present value of the minimum lease payments (excluding executory costs) during the lease term or (2) the fair value of the leased asset at the inception of the lease. The present value of the lease payments is computed using the lessee's incremental borrowing rate unless the implicit rate used by the lessor is lower and the lessee has knowledge of it. The effective-interest method is used to allocate each lease payment between a reduction of the lease liability and interest expense.

If the lease transfers ownership or contains a bargain-purchase option, the asset is depreciated in a manner consistent with the lessee's normal depreciation policy on assets owned, using the economic life of the asset and allowing for salvage value. If the lease does not transfer ownership or contain a bargain-purchase option, the leased asset is amortized over the lease term.

9. From the standpoint of the lessor, leases may be classified for accounting purposes are classified as: (a) operating leases, (b) direct-financing leases, and (c) sales-type leases.

From the standpoint of lessors, leases are classified as finance leases if they meet one or more of the following four criteria:

1. The lease transfers ownership of the property to the lessee,
2. The lease contains a bargain-purchase option,
3. The lease term is for the major part of the economic life of the asset,
4. The present value of the minimum lease payments amounts to substantially all of the fair value of the leased asset.

Finance leases are classified as direct-financing leases or sales-type leases. All other leases are classified as operating leases. The distinction for the lessor between a direct-financing lease and a sales-type lease is the presence or absence of a manufacturer's or dealer's profit or loss.

10. If the lease transaction satisfies the necessary criteria to be classified as a direct-financing lease, the lessor records a "lease receivable" for the leased asset. The lease receivable is the present value of the minimum lease payments. Minimum lease payments include the rental payments (excluding executory costs), bargain-purchase option (if any), guaranteed residual value (if any) and penalty forfeiture to renew (if any). In addition, the present value of the unguaranteed residual value (if any) must also be included.

11. Under the operating method, each rental receipt of the lessor is recorded as rental revenue on the use of an item carried as a fixed asset. The fixed asset is depreciated in the normal manner, with the depreciation expense is recognized in the same period as the rental revenue. The amount of revenue recognized in each accounting period is equivalent to the amount of rent receivable according to the provisions of the lease. In addition to the depreciation charge, maintenance costs and the cost of any other services rendered under the provisions of the lease that pertain to the current accounting period are charged against the recognized revenue.

12. Walker Company can use the sales-type lease accounting method if at the inception of the lease a manufacturer's or dealer's profit (or loss) exists and the lease meets one or more of the following four criteria:
(1) The lease transfers ownership of the property to the lessee,
(2) The lease contains a bargain-purchase option,
(3) The lease term is for the major part of the economic life of the asset,
(4) The present value of the minimum lease payments amounts to substantially all of the fair value of the leased asset.

13. Metheny Corporation should recognize the difference between the fair value (normal sales price) of the leased property at the inception of the lease and its cost or carrying amount (book value) as gross profit in the period the sales-type lease begins and the assets are transferred to the lessee. The balance of the transaction is treated as a direct-financing lease (i.e., interest revenue is earned over the lease term).

14. The lease agreement between Alice Foyle, M.D. and Brownback Realty, Inc. appears to be in substance a purchase of property. Because the lease has a bargain-purchase option which transfers ownership of the property to the lessee, the lease is a finance lease. Additional evidence of the finance lease character is that the lessor recovers all costs plus a reasonable rate of return on investment. As a finance lease, the property and the related liability should be recorded at the discounted amount of the future lease payments with that amount being allocated between the land and the building in proportion to their fair values at the inception of the lease. The building should be depreciated over its estimated useful life.

15. (a) (1) The lessee's accounting for a lease with an unguaranteed residual value is the same as the accounting for a lease with no residual value in terms of the computation of the minimum lease payments and the capitalized value of the leased asset and the lease obligation. That is, unguaranteed residual values are not included in the lessee's minimum lease payments.

(2) A guaranteed residual value affects the lessee's computation of the minimum lease payments and the capitalized amount of the leased asset and the lease liability. The capitalized value is affected initially by the presence of a guaranteed residual value since the present value of the lease obligation is now made up of two components—the periodic lease payments and the guaranteed residual value. The amortization of the lease liability will result in a lease liability balance at the end of the lease period which is equal to the guaranteed residual value. Upon termination of the lease, the lessee may recognize a gain or loss depending on the relationship between the actual residual value and the amount guaranteed.

(b) (1) & (2) The amount to be recovered by the lessor is the same whether the residual value is guaranteed or unguaranteed. Therefore, the amount of the periodic lease payments as set by the lessor is the same whether the residual value is guaranteed or unguaranteed.

16. If the estimate of the residual value declines, the lessor must recognize a loss to the extent of the decline in the period of the decline. Taken literally, the accounting for the entire transaction must be revised by the lessor using the changed estimate. The lease receivable is reduced by the amount of the decline in the estimated residual value. Upward adjustments of the estimated residual value are not made.

17. If a bargain-purchase option exists, the lessee must increase the present value of the minimum lease payments by the present value of the option price. A bargain-purchase option also affects the depreciable life of the leased asset since the lessee must depreciate the asset over its economic life rather than the term of the lease. If the lessee fails to exercise the option, the lessee will recognize a loss to the extent of the net book value of the leased asset in the period that the option expired.

18. Initial direct costs are the incremental costs incurred by the lessor that are directly associated with negotiating, consummating and initially processing leasing transactions. For operating leases, the lessor should defer initial direct costs and allocate them over the lease term in proportion to the recognition of rental revenue. In a sales-type lease transaction, the lessor expenses the initial direct costs in the year of incurrence (i.e., the year in which profit on the sale is recognized). In a direct-financing lease, initial direct costs should be added to the net investment in the lease and amortized over the life of the lease as a yield adjustment.

19. Lessees and lessors should disclose the future minimum rental payments required as of the date of the latest statement of financial position presented, in the aggregate, and for the next year, for years 2-5, and thereafter.

20. Both U.S. GAAP and IFRS share the same objective of recording leases by lessees and lessors according to their economic substance—that is, according to the definitions of assets and liabilities. U.S. GAAP for leases is much more "rule-based" with specific bright-line criteria to determine if a lease arrangement transfers the risks and rewards of ownership; IFRS is more general in its provisions.

21. One example of the less detailed guidance in lease accounting under IFRS involves disclosure policy. Under U.S. GAAP, extensive disclosure of future noncancelable lease payments is required for the next five years and the years thereafter. Under IFRS, not as much detail is required, as shown in the sample disclosure below.

IFRS Sample Lease Note Disclosure

The Group's obligations under finance leases are secured by the lessors' title to the leased assets.

Finance lease liabilities (euros, 000,000) Minimum lease payments,	31/12/11
No later than 1 year	€ 58
Later than 1 year and not later than 5 years	44
Later than 5 years	—
	€102

Thus, with no detail on the year-by-year breakout of payments due in years 1 through 5, it is more difficult to estimate the impact of the off-balance sheet liabilities for IFRS companies.

22. Lease accounting is one of the areas identified in the IASB/FASB Memorandum of Understanding and also a topic recommended by the SEC in its off-balance-sheet study for standard-setting attention. The joint project will initially primarily focus on lessee accounting. One of the first areas to be studied is, "What are the assets and liabilities to be recognized related to a lease contract?" The current exposure draft calls for all leases to be recorded as capital leases based on a right of use model. Thus, the operating lease classification will be eliminated.

***23.** The term "sale-leaseback" describes a transaction in which the owner of property sells such property to another and immediately leases it back from the new owner. The property is sold generally at a price equal to or less than current fair value and leased back for a term approximating the property's useful life for lease payments sufficient to repay the buyer for the cash invested plus a reasonable return on the buyer's investment. The purpose of the transaction is to raise money with certain property given as security. For accounting purposes the sale-leaseback should be accounted for by the lessee as a finance lease if the criteria are satisfied and by the lessor as a purchase and a direct-financing lease if the criteria are satisfied. Any income or loss experienced by the seller-lessee from the sale of the assets that are leased back should be deferred and amortized over the lease term (or the economic life if either criteria (1) a bargain purchase option or (2) a transfer of ownership occurs at the end of the lease is satisfied) in proportion to the amortization of the leased assets. Losses should be recognized immediately.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 21-1

The lease does not meet the transfer of ownership test, the bargain-purchase test, or the economic life test [(5 years ÷ 8 years) < 75%]. However, it does pass the recovery of investment test. The present value of the minimum lease payments (¥3,100,000 X 4.16986 = ¥12,926,566) is greater than 90% of the FV of the asset (90% X ¥13,800,000 = ¥12,420,000). Therefore, Mizuno should classify the lease as a capital lease.

BRIEF EXERCISE 21-2

Leased Equipment Under Finance Leases	150,000*	
Lease Liability		150,000
Lease Liability	43,019	
Cash		43,019

*$43,019 X 3.48685 (PVADi = 10, n = 4)

BRIEF EXERCISE 21-3

Interest Expense	29,530	
Interest Payable [($300,000 – $53,920) X 12%]		29,530
Depreciation Expense	37,500	
Accumulated Depreciation ($300,000 X 1/8)		37,500

BRIEF EXERCISE 21-4

Interest Payable [($300,000 – $53,920) X 12%]	29,530	
Lease Liability	24,390	
Cash		53,920

BRIEF EXERCISE 21-5

Rent Expense	35,000	
Cash		35,000

BRIEF EXERCISE 21-6

Lease Receivable (4.99271 X $30,044)........................	150,000	
Equipment		150,000
Cash..	30,044	
Lease Receivable		30,044

BRIEF EXERCISE 21-7

Interest Receivable..	9,596	
Interest Revenue [($150,000 – $30,044) X 8%]......		9,596

BRIEF EXERCISE 21-8

Cash..	15,000	
Rent Revenue		15,000
Depreciation Expense	10,000	
Accumulated Depreciation (€80,000 X 1/8)..........		10,000

BRIEF EXERCISE 21-9

Leased Machinery Under Finance Leases	202,921*	
Lease Liability		202,921

*PV of rentals	$40,000 X 4.79079	$191,632
PV of guar. RV	$20,000 X .56447	11,289
		$202,921

Lease Liability..	40,000	
Cash		40,000

BRIEF EXERCISE 21-10

Lease Receivable	202,921	
Machinery		202,921
Cash..	40,000	
Lease Receivable		40,000

BRIEF EXERCISE 21-11

Lease Receivable (£40,800 X 4.03735)	164,724	
Sales		164,724
Cost of Goods Sold	110,000	
Inventory		110,000
Cash	40,800	
Lease Receivable		40,800

*BRIEF EXERCISE 21-12

Cash	33,000	
Truck		28,000
Unearned Profit on Sale-Leaseback		5,000
Leased Truck Under Finance Leases	33,000*	
Lease Liability		33,000

*(€8,705 X 3.79079; €1 difference due to rounding.)

Depreciation Expense	6,600	
Accumulated Depreciation (€33,000 X 1/5)		6,600
Unearned Profit on Sale-Leaseback	1,000	
Depreciation Expense (€5,000 X 1/5)		1,000
Interest Expense (€33,000 X 10%)	3,300	
Lease Liability	5,405	
Cash		8,705

SOLUTIONS TO EXERCISES

EXERCISE 21-1 (15–20 minutes)

(a) This is a finance lease to Adams since the lease term (5 years) is greater than 75% of the economic life (6 years) of the leased asset. The lease term is a major part [$83^1/_3$% (5 ÷ 6)] of the asset's economic life.

(b) Computation of present value of minimum lease payments:
$9,968 X 4.16986* = $41,565

*Present value of an annuity due of 1 for 5 periods at 10%.

(c)

1/1/11	Leased Machine Under Finance Leases	41,565	
	Lease Liability		41,565
	Lease Liability	9,968	
	Cash		9,968
12/31/11	Depreciation Expense	8,313	
	Accumulated Depreciation—Capital Leases		8,313
	($41,565 ÷ 5 = $8,313)		
	Interest Expense	3,160	
	Interest Payable		3,160
	[($41,565 – $9,968) X .10]		
1/1/12	Lease Liability	6,808	
	Interest Payable	3,160	
	Cash		9,968

EXERCISE 21-2 (20–25 minutes)

(a) To Brecker, the lessee, this lease is a finance lease because the terms satisfy the following criteria:

1. The lease term is greater than 75% of the economic life of the leased asset; that is, the lease term is $83^1/_3$ % (50/60) of the economic life.
2. The present value of the minimum lease payments is greater than 90% of the fair value of the leased asset; that is, the present value of €10,515 (see below) amounts to substantially all (96%) of the fair value of the leased asset:

(b) The minimum lease payments in the case of a guaranteed residual value by the lessee include the guaranteed residual value. The present value therefore is:

Monthly payment of €250 for 50 months..........	€ 9,800
Residual value of €1,180	715
Present value of minimum lease payments......	€10,515

(c)

Leased Property Under Finance Leases.................	10,515	
Lease Liability..		10,515

(d)

Depreciation Expense..	186.70	
Accumulated Depreciation—Finance Leases		186.70
[(€10,515 – €1,180) ÷ 50 months = €186.70]		

(e)

Lease Liability	144.85	
Interest Expense (1% X €10,515)...............................	105.15	
Cash		250.00

EXERCISE 21-3 (20–30 minutes)

Capitalized amount of the lease:

Yearly payment...	$90,000.00
Executory costs	(3,088.14)
Minimum annual lease payment	$86,911.86

EXERCISE 21-3 (Continued)

Present value of minimum lease payments
$86,911.86 X 6.32825 = $550,000.00

1/1/11	Leased Building Under Finance Leases	550,000.00	
	Lease Liability		550,000.00
1/1/11	Executory Costs—Property Taxes	3,088.14	
	Lease Liability	86,911.86	
	Cash		90,000.00
12/31/11	Depreciation Expense	55,000.00	
	Accumulated Depreciation—Finance Leases		55,000.00
	($550,000 ÷ 10)		
12/31/11	Interest Expense (See Schedule 1)	55,570.58	
	Interest Payable		55,570.58
1/1/12	Executory Costs—Property Taxes	3,088.14	
	Interest Payable	55,570.58	
	Lease Liability	31,341.28	
	Cash		90,000.00
12/31/12	Depreciation Expense	55,000.00	
	Accumulated Depreciation—Finance Leases		55,000.00
12/31/12	Interest Expense	51,809.62	
	Interest Payable		51,809.62

EXERCISE 21-3 (Continued)

Schedule 1 — **STORA ENSO CORP.**
Lease Amortization Schedule
(Lessee)

Date	Annual Payment Less Executory Costs	Interest (12%) on Liability	Reduction of Lease Liability	Lease Liability
1/1/11				$550,000.00
1/1/11	$86,911.86	$ 0	$86,911.86	463,088.14
1/1/12	86,911.86	55,570.58	31,341.28	431,746.86
1/1/13	86,911.86	51,809.62	35,102.24	396,644.62

EXERCISE 21-4 (20–25 minutes)

<u>Computation of annual payments</u>

Cost (fair value) of leased asset to lessor	£240,000.00
Less: Present value of residual value (residual value in this case) £16,000 X .82645 (Present value of 1 at 10% for 2 periods)	13,223.20
Amount to be recovered through lease payments	£226,776.80
Two periodic lease payments £226,776.80 ÷ 1.73554*.............	£130,666.42

*Present value of an ordinary annuity of 1 for 2 periods at 10%

KRAUSS LEASING COMPANY (Lessor)
Lease Amortization Schedule

Date	Annual Payment Less Executory Costs	Interest on Lease Receivable	Recovery of Lease Receivable	Lease Receivable
1/1/11				£240,000.00
12/31/11	£130,666.42	£24,000.00	£106,666.42	133,333.58
12/31/12	130,666.42	13,332.84*	117,333.58	16,000.00
		£37,332.84		

***Difference of £.52 due to rounding.**

EXERCISE 21-4 (Continued)

(a)	1/1/11	Lease Receivable	240,000.00	
		Equipment		240,000.00
	12/31/11	Cash (£130,666.42 + £7,000)	137,666.42	
		Executory Costs Payable		7,000.00
		Lease Receivable..............		106,666.42
		Interest Revenue...............		24,000.00
	12/31/12	Cash	137,666.42	
		Executory Costs Payable		7,000.00
		Lease Receivable..............		117,333.58
		Interest Revenue...............		13,332.84
(b)	12/31/12	Cash	16,000.00	
		Lease Receivable..............		16,000.00

EXERCISE 21-5 (15–20 minutes)

(a) Because the lease term is longer than 75% of the economic life of the asset and the present value of the minimum lease payments is more than 90% of the fair value of the asset, it is a finance lease to the lessee. The lease is a direct-financing lease to the lessor since the machine's cost and fair value are the same.

The lessee should adopt the finance lease method and record the leased asset and lease liability at the present value of the minimum lease payments using the lessor's implicit rate unless it is impracticable to determine. Otherwise, use the lessee's incremental borrowing rate. The lessee's depreciation depends on whether ownership transfers to the lessee or if there is a bargain purchase option. If one of these conditions is fulfilled, amortization would be over the economic life of the asset. Otherwise, it would be depreciated over the lease term. Because both the economic life of the asset and the lease term are three years, the leased asset should be depreciated over this period.

EXERCISE 21-5 (Continued)

The lessor should adopt the direct-financing lease method and replace the asset cost of $75,000 with Lease Receivable of $75,000. (See schedule below.) Interest would be recognized annually at a constant rate relative to the unrecovered net investment.

Cost (fair value of leased asset)	$75,000
Amount to be recovered by lessor through lease payments	$75,000
Three annual lease payments: $75,000 ÷ 2.53130*	$29,629

*Present value of an ordinary annuity of 1 for 3 periods at 9%.

(b) Schedule of Interest and Amortization

	Rent Receipt/ Payment	Interest Revenue/ Expense	Reduction of Principal	Receivable/ Liability
1/1/11	—	—	—	$75,000
12/31/11	$29,629	$6,750*	$22,879	52,121
12/31/12	29,629	4,691	24,938	27,183
12/31/13	29,629	2,446	27,183	0

*$75,000 X .09 = $6,750

EXERCISE 21-6 (15–20 minutes)

(a) ¥38,514,000 X 5.7122* = ¥220,000,000

*Present value of an annuity due of 1 for 8 periods at 11%.

(b)

1/1/11	Lease Receivable	220,000,000	
	Cost of Goods Sold	170,000,000	
	Sales		220,000,000
	Inventory		170,000,000
1/1/11	Cash	38,514,000	
	Lease Receivable		38,514,000

EXERCISE 21-6 (Continued)

12/31/11	Interest Receivable............................	19,963,000	
	Interest Revenue [(¥220,000,000 – ¥38,514,000) X .11—rounded].................................		19,963,000

EXERCISE 21-7 (20–25 minutes)

(a) This is a finance lease to Immelman since the lease term is 75% (6 ÷ 8) of the asset's economic life. In addition, the present value of the minimum lease payments is more than 90% of the fair value of the asset.

This is also a finance lease to Palmer since the lease term is 75% of the asset's economic life. Because the fair value of the equipment ($200,000) exceeds the lessor's cost ($150,000), the lease is a sales-type lease.

(b) Computation of annual rental payment:

$$\frac{\$200{,}000 - (\$10{,}000 \text{ X } .53464)^*}{4.69590^{**}} = \underline{\underline{\$41{,}452}}$$

*Present value of $1 at 11% for 6 periods.
**Present value of an annuity due at 11% for 6 periods.

(c)

1/1/11	Leased Equipment Under Finance Leases	190,877	
	Lease Liability ($41,452 X 4.60478)***..............		190,877
	Lease Liability	41,452	
	Cash..		41,452

***Present value of an annuity due at 12% for 6 periods.

12/31/11	Depreciation Expense.........................	31,813	
	Accumulated Depreciation ($190,877 ÷ 6 years).................		31,813
	Interest Expense	17,931	
	Interest Payable		

($190,877 – $41,452) X .12	**17,931**

EXERCISE 21-7 (Continued)

(d)	1/1/11	Lease Receivable	200,000*	
		Cost of Goods Sold..........................	144,654**	
		Sales		194,654***
		Inventory		150,000

*($41,452 X 4.6959) + ($10,000 X .53464)
**$150,000 – ($10,000 X .53464)
***$41,452 X 4.6959

		Cash	41,452	
		Lease Receivable.......................		41,452
	12/31/11	Interest Receivable...........................	17,440	
		Interest Revenue [($200,000 – $41,452) X .11] ...		17,440

EXERCISE 21-8 (20–30 minutes)

(a) The lease agreement has a bargain-purchase option and thus meets the criteria to be classified as a finance lease from the viewpoint of the lessee. Also, the present value of the minimum lease payments exceeds 90% of the fair value of the asset.

(b) The lease agreement has a bargain-purchase option. The lease, therefore, qualifies as a finance-type lease from the viewpoint of the lessor. Due to the fact that the initial amount of lease receivable (net investment) (which in this case equals the present value of the minimum lease payments, €81,000) exceeds the lessor's cost (€65,000), the lease is a sales-type lease.

(c) Computation of lease liability:

€18,829.49	Annual rental payment
X 4.16986	PV of annuity due of 1 for n = 5, i = 10%
€78,516.34	PV of periodic rental payments

EXERCISE 21-8 (Continued)

€ 4,000.00	Bargain-purchase option
X .62092	PV of 1 for n = 5, i = 10%
€ 2,483.68	PV of bargain-purchase option

€78,516.34	PV of periodic rental payments
+ 2,483.68	PV of bargain-purchase option
€81,000.00*	Lease liability

*rounded

GILL COMPANY (Lessee)
Lease Amortization Schedule

Date	Annual Lease Payment Plus BPO	Interest (10%) on Liability	Reduction of Lease Liability	Lease Liability
5/1/10				€81,000.00
5/1/10	€18,829.49		€18,829.49	62,170.51
5/1/11	18,829.49	€ 6,217.05	12,612.44	49,558.07
5/1/12	18,829.49	4,955.81	13,873.68	35,684.39
5/1/13	18,829.49	3,568.44	15,261.05	20,423.34
5/1/14	18,829.49	2,042.33	16,787.16	3,636.18
4/30/15	4,000.00	363.82*	3,636.18	0
	€98,147.45	€17,147.45	€81,000.00	

*Rounding error is 20 cents.

(d)	5/1/10	Leased Equipment Under Finance Leases	81,000.00	
		Lease Liability		81,000.00
		Lease Liability	18,829.49	
		Cash		18,829.49
	12/31/10	Interest Expense	4,144.70	
		Interest Payable (€6,217.05 X 8/12 = €4,144.70)		4,144.70

EXERCISE 21-8 (Continued)

	Depreciation Expense.....................	5,400	
	Accumulated Depreciation— Finance Leases....................		5,400
	(€81,000.00 ÷ 10 = €8,100.00; €8,100.00 X 8/12 = €5,400)		
1/1/11	Interest Payable..............................	4,144.70	
	Interest Expense......................		4,144.70
5/1/11	Interest Expense	6,217.05	
	Lease Liability	12,612.44	
	Cash..		18,829.49
12/31/11	Interest Expense	3,303.87	
	Interest Payable.......................		3,303.87
	(€4,955.81 X 8/12 = €3,303.87)		
12/31/11	Depreciation Expense.....................	8,100.00	
	Accumulated Depreciation— Finance Leases....................		8,100.00
	(€81,000.00 ÷ 10 years = €8,100.00)		

(Note to instructor: Because a bargain-purchase option was involved, the leased asset is depreciated over its economic life rather than over the lease term.)

EXERCISE 21-9 (20–30 minutes)

Note: The lease agreement has a bargain-purchase option. The lease, therefore, qualifies as a finance lease from the viewpoint of the lessor.

Due to the fact that the amount of the sale (which in this case equals the present value of the minimum lease payments, €81,000) exceeds the lessor's cost (€65,000), the lease is a sales-type lease.

EXERCISE 21-9 (Continued)

The minimum lease payments associated with this lease are the periodic annual rents plus the bargain-purchase option. There is no residual value relevant to the lessor's accounting in this lease.

(a) The lease receivable is computed as follows:

€18,829.49	Annual rental payment
X 4.16986	PV of annuity due of 1 for n = 5, i = 10%
€78,516.34	PV of periodic rental payments
€ 4,000.00	Bargain purchase option
X .62092	PV of 1 for n = 5, i = 10%
€ 2,483.68	PV of bargain-purchase option
€78,516.34	PV of periodic rental payments
+ 2,483.68	PV of bargain-purchase option
€81,000.00*	Lease receivable at inception

*Rounded

(b) LENNOX LEASING COMPANY (Lessor)
Lease Amortization Schedule

Date	Annual Lease Payment Plus BPO	Interest (10%) on Lease Receivable	Recovery of Lease Receivable	Lease Receivable
5/1/10				€81,000.00
5/1/10	€18,829.49		€18,829.49	62,170.51
5/1/11	18,829.49	€ 6,217.05	12,612.44	49,558.07
5/1/12	18,829.49	4,955.81	13,873.68	35,684.39
5/1/13	18,829.49	3,568.44	15,261.05	20,423.34
5/1/14	18,829.49	2,042.33	16,787.16	3,636.18
4/30/15	4,000.00	363.82*	3,636.18	0
	€98,147.45	€17,147.45	€81,000.00	

*Rounding error is 20 cents.

EXERCISE 21-9 (Continued)

(c)	5/1/10	Lease Receivable	81,000.00	
		Cost of Goods Sold..................	65,000.00	
		Sales		81,000.00
		Inventory		65,000.00
		Cash	18,829.49	
		Lease Receivable...............		18,829.49
	12/31/10	Interest Receivable....................	4,144.70	
		Interest Revenue................		4,144.70
		(€6,217.05 X 8/12 = €4,144.70)		
	5/1/11	Cash	18,829.49	
		Lease Receivable...............		12,612.44
		Interest Receivable............		4,144.70
		Interest Revenue................		2,072.35
		(€6,217.05 – €4,144.70)		
	12/31/11	Interest Receivable....................	3,303.87	
		Interest Revenue................		3,303.87
		(€4,955.81 X 8/12 = €3,303.87)		
	5/1/12	Cash	18,829.49	
		Lease Receivable...............		13,873.68
		Interest Receivable............		3,303.87
		Interest Revenue................		1,651.94
		(€4,955.81 – €3,303.87)		
	12/31/12	Interest Receivable....................	2,378.96	
		Interest Revenue................		2,378.96
		(€3,568.44 X 8/12 = €2,378.96)		

EXERCISE 21-10 (15–25 minutes)

(a) Fair value of leased asset to lessor £343,000.00
Less: Present value of unguaranteed residual value £61,071 X .56447 (present value of 1 at 10% for 6 periods)............. 34,472.75
Amount to be recovered through lease payments £308,527.25

Six periodic lease payments £308,527.25 ÷ 4.79079* ..... £ 64,400.00**

*Present value of annuity due of 1 for 6 periods at 10%.
**Rounded to the nearest pound.

(b)

FIEVAL LEASING COMPANY (Lessor)
Lease Amortization Schedule

Date	Annual Lease Payment Plus URV	Interest (10%) on Lease Receivable	Recovery of Lease Receivable	Lease Receivable
1/1/10				£343,000
1/1/10	£ 64,400		£ 64,400	278,600
1/1/11	64,400	£ 27,860	36,540	242,060
1/1/12	64,400	24,206	40,194	201,866
1/1/13	64,400	20,187	44,213	157,653
1/1/14	64,400	15,765	48,635	109,018
1/1/15	64,400	10,902	53,498	55,520
12/31/15	61,071	5,551	55,520	0
	£447,471	£104,471	£343,000	

(c)

Date	Account	Debit	Credit
1/1/10	Lease Receivable	343,000	
	Equipment		343,000
1/1/10	Cash	64,400	
	Lease Receivable		64,400
12/31/10	Interest Receivable	27,860	
	Interest Revenue		27,860
1/1/11	Cash	64,400	
	Lease Receivable		36,540
	Interest Receivable		27,860
12/31/11	Interest Receivable	24,206	
	Interest Revenue		24,206

EXERCISE 21-11 (20–30 minutes)

Note: This lease is a finance lease to the lessee because the lease term (five years) exceeds 75% of the remaining economic life of the asset (five years). Also, the present value of the minimum lease payments exceeds 90% of the fair value of the asset.

$20,541.11	Annual rental payment
X 4.16986	PV of an annuity due of 1 for n = 5, i = 10%
$85,653.55	PV of minimum lease payments

(a)

AZURE COMPANY (Lessee)
Lease Amortization Schedule

Date	Annual Lease Payment	Interest (10%) on Liability	Reduction of Lease Liability	Lease Liability
1/1/10				$85,653.55
1/1/10	$ 20,541.11		$20,541.11	65,112.44
1/1/11	20,541.11	$ 6,511.24	14,029.87	51,082.57
1/1/12	20,541.11	5,108.26	15,432.85	35,649.72
1/1/13	20,541.11	3,564.97	16,976.14	18,673.58
1/1/14	20,541.11	1,867.53*	18,673.58	0
	$102,705.55	$17,052.00	$85,653.55	

*Rounding error is 17 cents.

(b)

1/1/10	Leased Equipment Under Finance Leases	85,653.55	
	Lease Liability		85,653.55
1/1/10	Lease Liability	20,541.11	
	Cash		20,541.11

During 2010

Insurance Expense	900.00	
Cash		900.00
Property Tax Expense	1,600.00	
Cash		1,600.00

12/31/10	Interest Expense	6,511.24	
	Interest Payable.......................		6,511.24
	Depreciation Expense	17,130.71	
	Accumulated Depreciation— Finance Leases		17,130.71
	($85,653.55 ÷ 5 = $17,130.71)		
1/1/11	Interest Payable	6,511.24	
	Interest Expense		6,511.24
	Interest Expense	6,511.24	
	Lease Liability	14,029.87	
	Cash		20,541.11
	During 2011		
	Insurance Expense	900.00	
	Cash		900.00
	Property Tax Expense	1,600.00	
	Cash		1,600.00
12/31/11	Interest Expense	5,108.26	
	Interest Payable.......................		5,108.26
	Depreciation Expense	17,130.71	
	Accumulated Depreciation— Finance Leases		17,130.71

Note to instructor:

1. The lessor sets the annual rental payment as follows:

Fair value of leased asset to lessor................................	$90,000.00
Less: Present value of unguaranteed residual value $7,000 X .62092 (present value of 1 at 10% for 5 periods)	4,346.44
Amount to be recovered through lease payments	$85,653.56
Five periodic lease payments $85,653.56 ÷ 4.16986*...	$20,541.11

*Present value of annuity due of 1 for 5 periods at 10%.

EXERCISE 21-11 (Continued)

2. The unguaranteed residual value is not subtracted when depreciating the leased asset.

EXERCISE 21-12 (10–20 minutes)

(a) Entries for Secada are as follows:

1/1/11	Building	3,600,000	
	Cash		3,600,000
12/31/11	Cash	220,000	
	Rental Revenue		220,000
	Depreciation Expense	72,000	
	Accumulated Depreciation— Building (€3,600,000 ÷ 50)		72,000
	Property Tax Expense	85,000	
	Insurance Expense	10,000	
	Cash		95,000

(b) Entries for Ryker are as follows:

12/31/11	Rent Expense	220,000	
	Cash		220,000

(c) The real estate broker's fee should be capitalized and amortized equally over the 10-year period. As a result, real estate fee expense of $3,000 (€30,000 ÷ 10) should be reported in each period.

EXERCISE 21-13 (15–20 minutes)

(a)

Annual rental revenue	$180,000
Less: Maintenance and other executory costs	25,000
Depreciation ($900,000 ÷ 8)	112,500
Income before income tax	$ 42,500

EXERCISE 21-13 (Continued)

(b) Rent expense $180,000

Note: Both the rent security deposit and the last month's rent prepayment should be reported as a non-current asset.

EXERCISE 21-14 (15–20 minutes)

(a)

SAGE COMPANY
Rent Expense
For the Year Ended December 31, 2011

Monthly rental	$	15,600
Lease period in 2011 (March–December)	X	10 months
	$	156,000

(b)

HOOKE INC.
Income or Loss from Lease before Taxes
For the Year Ended December 31, 2011

Rental revenue ($15,600 X 10 months)		$156,000
Less expense		
Depreciation	$100,000*	
Commission	6,250**	106,250
Income from lease before taxes		$ 49,750

*$1,200,000 cost ÷ 10 years = $120,000/year
$120,000 X 10/12 = $100,000

**(Note to instructor: Under principles of accrual accounting, the commission should be amortized over the life of the lease: $30,000 ÷ 4 years = $7,500 X 10/12 = $6,250.)

***EXERCISE 21-15 (20–30 minutes)**

Peking Duck Co. (Lessee)*

1/1/11	Cash	510,000.00	
	Computer		450,000.00
	Unearned Profit on Sale— Leaseback		60,000.00
	Leased Computer Under Finance Leases	510,000.00	
	Lease Liability (¥83,000.11 X 6.14457)		510,000.00
	Throughout 2011		
	Executory Costs	9,000.00	
	Accounts Payable or Cash		9,000.00
12/31/11	Unearned Profit on Sale— Leaseback	6,000.00	
	Depreciation Expense** (¥60,000 ÷ 10)		6,000.00
12/31/11	Depreciation Expense	51,000.00	
	Accumulated Depreciation (¥510,000 ÷ 10)		51,000.00
	Interest Expense	51,000.00	
	Lease Liability	32,000.11	
	Cash		83,000.11

*The lease should be treated as a finance lease because the present value of minimum lease payments equals the fair value of the computer. Also, the lease term is greater than 75% of the economic life of the asset, and title transfers at the end of the lease.

**The credit could also be to a revenue account.

Note to instructor:

1. The present value of an ordinary annuity at 10% for 10 periods should be used to capitalize the asset. In this case, Peking Duck Co. would use the implicit rate of the lessor because it is known to Peking Duck Co.

*EXERCISE 21-15 (Continued)

2. The unearned profit on the sale-leaseback should be amortized on the same basis that the asset is being depreciated.

Partial Lease Amortization Schedule

Date	Annual Lease Payment	Interest (10%)	Amortization	Balance
1/1/11				¥510,000.00
12/31/11	¥83,000.11	¥51,000.00	¥32,000.11	477,999.89

Liquidity Finance Co. (Lessor)*

1/1/11	Computer..................................	510,000.00	
	Cash		510,000.00
	Lease Receivable......................	510,000.00	
	Computer		510,000.00
12/31/11	Cash...	83,000.11	
	Lease Receivable		32,000.11
	Interest Revenue		51,000.00

*Lease should be treated as a direct-financing lease because the present value of the minimum lease payments equals the fair value of the computer, and the cost to the lessor equals the fair value of the asset at the inception of the lease.

*EXERCISE 21-16 (20–30 minutes)

(a) Sale-leaseback arrangements are treated as though two transactions were a single financing transaction if the lease qualifies as a finance lease. Any gain or loss on the sale is deferred and amortized over the lease term (if possession reverts to the lessor) or the economic life (if ownership transfers to the lessee). In this case, the lease qualifies as a finance lease because the lease term (10 years) is 83% of the remaining economic life of the leased property (12 years). Therefore, at 12/31/11, all of the gain of $160,000 ($560,000 – $400,000) would be deferred and amortized over 10 years. Since the sale took place on 12/31/11, there is no amortization for 2011.

***EXERCISE 21-16 (Continued)**

(b) A sale-leaseback is usually treated as a single financing transaction in which any profit on the sale is deferred and amortized by the seller. In this situation the seller-lessee accounts for the lease as an operating lease with the sale and the leaseback accounted for as separate transactions. Therefore, the full gain ($480,000 – $420,000, or $60,000) is recognized.

(c) The profit on the sale of $99,000 should be deferred and amortized over the lease term. Since the leased asset is being depreciated using the sum-of-the-years' depreciation method, the deferred gain should also be reported in the same manner. Therefore, in the first year, $18,000 (10/55 X $99,000) of the gain would be recognized.

(d) In this case, Durocher would report a loss of $87,300 ($300,000 – $212,700) for the difference between the book value and lower fair value. The profession requires that when the fair value of the asset is less than the book value (carrying amount), a loss must be recognized immediately. In addition, rent expense of $72,000 should be reported.

TIME AND PURPOSE OF PROBLEMS

Problem 21-1 (Time 20–25 minutes)
Purpose—to develop an understanding of the accounting principles used in a sales-type lease for both the lessee and the lessor. The student is required to discuss the nature of the lease and make journal entries for both the lessee and the lessor.

Problem 21-2 (Time 20–30 minutes)
Purpose—to develop an understanding of the accounting treatment for operating leases. The student is required to identify the type of lease involved, explain the respective reasons for their classification, and discuss the accounting treatment that should be applied for both the lessee and lessor. The student is also asked to prepare the journal entries to reflect the first year of this lease contract for both the lessee and lessor and to discuss the disclosures required of the lessee and lessor.

Problem 21-3 (Time 35–45 minutes)
Purpose—to develop an understanding of the accounting procedures involved in a sales-type leasing arrangement. The student is required to discuss the nature of this lease transaction from the viewpoint of both the lessee and lessor. The student is also requested to prepare the journal entries to record the lease for both the lessee and lessor plus illustrate the items and amounts that would be reported on the statement of financial position at the end of the first year for the lessee and the lessor.

Problem 21-4 (Time 30–40 minutes)
Purpose—to provide an understanding of how lease information is reported on the statement of financial position and income statement for three different years in regard to the lessee. In addition, the year-end month is changed in order to help provide an understanding of the complications involved with partial periods.

Problem 21-5 (Time 30–40 minutes)
Purpose—to provide an understanding of how lease information is reported on the statement of financial position and income statement for three different years in regard to the lessor. In addition, the year-end month is changed in order to help provide an understanding of the complications involved with partial periods.

Problem 21-6 (Time 25–35 minutes)
Purpose—to provide an understanding of the journal entries to be recorded by the lessee given a guaranteed residual value. Journal entries for two periods are required.

Problem 21-7 (Time 25–30 minutes)
Purpose—to develop an understanding of the accounting for a finance lease by the lessee in an annuity due arrangement. The student is required to prepare the lease amortization schedule for the entire term of the lease and all the necessary journal entries for the lease through the first two lease payments. The student is also asked to indicate the amounts that would be reported on the lessee's statement of financial position.

Problem 21-8 (Time 20–30 minutes)
Purpose—to develop an understanding of the accounting by the lessee for a finance lease. The student is required to explain the relationship between the capitalized amount of leased equipment and the leasing arrangement. The student is asked to prepare the lessee's journal entries at the date of

inception, for depreciation of the leased asset, and for the first lease payment, as well as to indicate the amounts that should be reported on the lessee's statement of financial position.

Problem 21-9 (Time 20–30 minutes)
Purpose—to develop an understanding of the accounting for a finance lease by a lessee in an annuity due arrangement. The student is required to prepare all the journal entries, with supportive computations, which the lessee would have made to record the lease for the first period of the lease.

Problem 21-10 (Time 30–40 minutes)
Purpose—to develop an understanding of the accounting treatment accorded a sales-type lease involving an unguaranteed residual value. The student is required to discuss the nature of the lease with regard to the lessor and to compute the lease receivable, the sales price, and the cost of sales. The student is also required to construct a 10-year lease amortization schedule for the leasing arrangement, and to prepare the lessor's journal entries for the first year of the lease contract.

Problem 21-11 (Time 30–40 minutes)
Purpose—to develop an understanding of a finance lease with an unguaranteed residual value. The student explains why it is a finance lease and computes the amount of the initial obligation. The student prepares a 10-year amortization schedule and all of the lessee's journal entries for the first year.

Problem 21-12 (Time 40–50 minutes)
Purpose—to develop an understanding of the accounting for finance leases where the lease payments for the first half of the lease term differ from those for the latter half. The student is required to compute for the lessee the discounted present value of the leased property and the related obligation at the lease's inception date. The student is also asked to prepare journal entries for the lessee.

Problem 21-13 (Time 30–40 minutes)
Purpose—to develop an understanding of a sales-type lease with a guaranteed residual value. The student discusses the classification of the lease and computes the lease receivable at inception of lease, sales price, and cost of sales. The student prepares a 10-year amortization schedule and all of the lessor's journal entries for the first year.

Problem 21-14 (Time 30–40 minutes)
Purpose—to develop an understanding of a finance lease with a guaranteed residual value. The student explains why it is a finance lease and computes the amount of the initial obligation. The student prepares a 10-year amortization schedule and all of the lessee's journal entries for the first year.

Problem 21-15 (Time 30–40 minutes)
Purpose—to develop a memo to your audit supervisor to discuss: (a) why you inspected the lease agreement, (b) what you determined about the lease, and (c) how you advised your client to account for the lease. As part of the discussion you are required to make the journal entry necessary to record the lease property.

Problem 21-16 (Time 30–40 minutes)
Purpose—to develop an understanding of how residual values affect the accounting for the lessee and the lessor. The student must understand both the accounting for a guaranteed and unguaranteed residual value and determine how large the residual value must be to have operating lease treatment.

SOLUTIONS TO PROBLEMS

PROBLEM 21-1

(a) This is a finance lease to Jensen since the lease term is greater than 75% of the economic life of the leased asset. The lease term is 78% (7 ÷ 9) of the asset's economic life.

This is a finance lease to Glaus because the lease term is greater than 75% of the asset's economic life. Since the fair value ($700,000) of the equipment exceeds the lessor's cost ($525,000), the lease is a sales-type lease.

(b) Calculation of annual rental payment:

$$\frac{\$700{,}000 - (\$100{,}000 \text{ X } .51316)^*}{5.35526^{**}} = \underline{\underline{\$121{,}130}}$$

*Present value of $1 at 10% for 7 periods.
**Present value of an annuity due at 10% for 7 periods.

(c) Computation of present value of minimum lease payments:

PV of annual payments:	$121,130 X 5.23054* =	$633,575
PV of guaranteed residual value:	$100,000 X .48166** =	48,166
		$681,741

*Present value of an annuity due at 11% for 7 periods.
**Present value of $1 at 11% for 7 periods.

(d)

1/1/10	Leased Machinery Under Finance Leases	681,741	
	Lease Liability		681,741
	Lease Liability	121,130	
	Cash		121,130

PROBLEM 21-1 (Continued)

	12/31/10	Depreciation Expense	83,106	
		Accumulated Depreciation ($681,741 – $100,000) ÷ 7		83,106
		Interest Expense	61,667	
		Interest Payable ($681,741 – $121,130) X .11		61,667
	1/1/11	Lease Liability	59,463	
		Interest Payable	61,667	
		Cash		121,130
	12/31/11	Depreciation Expense	83,106	
		Accumulated Depreciation		83,106
		Interest Expense	55,126	
		Interest Payable		55,126
		[($681,741 – $121,130 – $59,463) X .11]		
(e)	1/1/10	Lease Receivable	700,000	
		Cost of Goods Sold	525,000	
		Sales		700,000
		Inventory		525,000
		Cash	121,130	
		Lease Receivable		121,130
	12/31/10	Interest Receivable	57,887	
		Interest Revenue [($700,000 – $121,130) X .10]		57,887
	1/1/11	Cash	121,130	
		Lease Receivable		63,243
		Interest Receivable		57,887
	12/31/11	Interest Receivable	51,563	
		Interest Revenue		51,563
		[($700,000 – $121,130 – $63,243) X .10]		

PROBLEM 21-2

(a) The lease is an operating lease to the lessee and lessor because:

1. **it does not transfer ownership,**
2. **it does not contain a bargain-purchase option,**
3. **it does not cover the major part (at least 75%) of the estimated economic life of the crane, and**
4. **the present value of the lease payments does not amount to substantially all (at least 90%) of the fair value of the leased crane.**

$33,000 Annual Lease Payments X PV of annuity due at 9% for 5 years $33,000 X 4.23972 = $139,910.76, which is less than $216,000.00 (90% X $240,000.00).

At least one of the four criteria would have had to be satisfied for the lease to be classified as other than an operating lease.

(b) Lessee's Entries

Rent Expense	33,000	
Cash		33,000

Lessor's Entries

Insurance Expense	500	
Tax Expense	2,000	
Maintenance Expense	650	
Cash or Accounts Payable		3,150
Depreciation Expense	18,750	
Accumulated Depreciation—Crane [($240,000 – $15,000) ÷ 12]		18,750
Cash	33,000	
Rental Revenue		33,000

(c) **Abriendo as lessee must disclose in the income statement the $33,000 of rent expense and in the notes the future minimum rental payments required as of January 1 (in total, $132,000) and for the next year (2012—$33,000) and years 2–5 ($99,000). Nothing relative to this lease would appear on the lessee's statement of financial position.**

Cancun as lessor must disclose in the statement of financial position or in the notes the cost of the leased crane ($240,000) and the accumulated depreciation of $18,750 separately from assets not leased. Additionally, Cancun must disclose in the notes the minimum future rentals as a total of $132,000, and for the next year (2012—$33,000) and years 2–5 ($99,000).

The income statement for the lessor reports rental revenue and expenses for insurance, taxes, maintenance, and depreciation expense.

PROBLEM 21-3

(a) The lease should be treated as a finance lease by Labron Industries requiring the lessee to capitalize the leased asset. The lease qualifies for finance lease accounting by the lessee because: (1) title to the engines transfers to the lessee, (2) the lease term is equal to the estimated life of the asset, and (3) the present value of the minimum lease payments exceeds 90% of the fair value of the leased engines. The transaction represents a purchase financed by installment payments over a 10-year period.

For Ewing Inc. the transaction is a sales-type lease because a manufacturer's profit accrues to Ewing. This lease arrangement also represents the manufacturer's financing the transaction over a period of 10 years.

<u>Present Value of Lease Payments</u>

$413,971 X 7.24689*	$3,000,000

*Present value of an annuity due at 8% for 10 years, rounded by $2.

<u>Dealer Profit</u>

Sales (present value of lease payments)	$3,000,000
Less cost of engines..	2,600,000
Profit on sale...	$ 400,000

(b)	Leased Engines Under Finance Leases..........	3,000,000	
	Lease Liability...		3,000,000
(c)	Lease Receivable	3,000,000	
	Cost of Goods Sold...	2,600,000	
	Sales		3,000,000
	Inventory		2,600,000
(d)	<u>Lessee</u>		
	Lease Liability	413,971	
	Cash		413,971
	<u>Lessor</u>		
	Cash	413,971	
	Lease Receivable		413,971

PROBLEM 21-3 (Continued)

(e)

LABRON INDUSTRIES
Lease Amortization Schedule

Date	Annual Lease Receipt/ Payment	Interest on Receivable/ Liability at 8%	Reduction in Receivable/ Liability	Lease Receivable/ Liability
1/1/11				3,000,000
1/1/11	413,971		413,971	2,586,029
1/1/12	413,971	206,882	207,089	2,378,940
1/1/13	413,971	190,315	223,656	2,155,284

Lessee

Interest Expense	206,882	
Interest Payable		206,882

Lessor

Interest Receivable	206,882	
Interest Revenue		206,882

(f)

LABRON INDUSTRIES
Statement of Financial Position
December 31, 2011

Property, plant, and equipment:		Non-current liabilities:	
		Lease liability (See schedule)	$2,378,940**
Leased property under finance leases	$3,000,000	Current liabilities:	
Less accumulated depreciation	300,000*	Interest payable	206,882
	$2,700,000	Lease liability	207,089***

*$3,000,000 ÷ 10 = $300,000
**No portion of this amount paid within the next year.
***($413,971 – $206,882)

Note: The title Obligations under Finance Leases is often used instead of Lease Liability.

PROBLEM 21-3 (Continued)

EWING INC.
Statement of Financial Position
December 31, 2011

Assets	
Noncurrent assets:	
Lease receivable..	$2,378,940*
Current assets:	
Interest receivable..	206,882
Lease receivable..	207,089

*See balance on amortization schedule at 1/1/12.

PROBLEM 21-4

(a)	1.	£23,768	Interest expense (See amortization schedule)
		£ 5,500	Lease executory expense
		£50,064	Depreciation expense (£300,383 ÷ 6 = £50,064)
	2.		Non-current liabilities:
		£198,751	Lease liability
			Current liabilities:
		£ 38,932	Lease liability
		£ 23,768	Interest payable
			Property, plant, and equipment:
		£300,383	Leased computer under finance lease
		(£50,064)	Accumulated depreciation
	3.	£19,875	Interest expense (See amortization schedule)
		£ 5,500	Lease executory expense
		£50,064	Depreciation expense (£300,383 ÷ 6 = £50,064)
	4.		Non-current liabilities:
		£155,926	Lease liability
			Current liabilities:
		£ 42,825	Lease liability
		£ 19,875	Interest payable
			Property, plant, and equipment:
		£300,383	Leased computer under finance lease
		(£100,128)	Accumulated depreciation
(b)	1.	£ 5,942	Interest expense (£23,768 X 3/12 = £5,942)
		£ 1,375	Lease executory expense (£5,500 X 3/12 = £1,375)
		£12,516	Depreciation expense (£300,383 ÷ 6 = £50,064; £50,064 X 3/12 = £12,516)

PROBLEM 21-4 (Continued)

2.		**Current liabilities:**
	£ 38,932	**Lease liability**
	£ 5,942	**Interest payable**
		Non-current liabilities:
	£198,751	**Lease liability**
		Property, plant, and equipment:
	£300,383	**Leased computer under finance lease**
	(£12,516)	**Accumulated depreciation**
		Current assets:
	£ 4,125	**Prepaid lease executory costs (£5,500 X 9/12 = £4,125)**
3.	**£22,795**	**Interest expense [(£23,768 – £5,942) + (£19,875 X 3/12) = £17,826 + £4,969 = £22,795]**
	£ 5,500	**Lease executory expense**
	£50,064	**Depreciation expense (£300,383 ÷ 6 = £50,064)**
4.		**Current liabilities:**
	£ 42,825	**Lease liability**
	£ 4,969	**Interest payable (£19,875 X 3/12 = £4,969)**
		Non-current liabilities:
	£155,926	**Lease liability**
		Property, plant, and equipment:
	£300,383	**Leased computer under finance lease**
	(£62,580)	**Accumulated depreciation (£12,516 + £50,064 = £62,580)**
		Current assets:
	£ 4,125	**Prepaid lease executory costs (£5,500 X 9/12 = £4,125)**

PROBLEM 21-5

(a) 1. £23,768 Interest revenue

2. Non-current assets:
£198,751 Lease receivable

Current assets:
£ 62,700 Lease receivable £38,932
Interest receivable £23,768

3. £19,875 Interest revenue

4. Non-current assets:
£155,926 Lease receivable

Current assets:
£ 62,700 Lease receivable £42,825
Interest receivable £19,875

(b) 1. £5,942 Interest revenue (£23,768 X 3/12 = £5,942)

2. Non-current assets:
£198,751 Lease receivable

Current assets:
£ 44,874 Lease receivable £38,932
Interest receivable £5,942

3. £22,795 Interest revenue
[(£23,768 – £5,942) + (£19,875 X 3/12) =
£17,826 + £4,969 = £22,795]

4. Non-current assets:
£155,926 Lease receivable

Current assets:
£ 47,794 Lease receivable £42,825
Interest receivable £ 4,969

PROBLEM 21-6

Note: This lease is a capital lease to the lessee because the lease term (six years) exceeds 75% of the remaining economic life of the asset (six years). Also, the present value of the minimum lease payments exceeds 90% of the fair value of the asset.

€ 124,798	Annual rental payment
X 4.60478	PV of an annuity due of 1 for n = 6, i = 12%
€ 574,668*	PV of periodic rental payments

€ 50,000	Guaranteed residual value
X .50663	PV of 1 for n = 6, i = 12%
€ 25,332	PV of guaranteed residual value

€ 574,668*	PV of periodic rental payments
+ 25,332	PV of guaranteed residual value
€ 600,000	PV of minimum lease payments

(a)

SHIGEKI COMPANY (Lessee)
Lease Amortization Schedule

Date	Annual Lease Payment Plus GRV	Interest (12%) on Liability	Reduction of Lease Liability	Lease Liability
1/1/10				€600,000
1/1/10	€124,798		€124,798	475,202
1/1/11	124,798	€ 57,024	67,774	407,428
1/1/12	124,798	48,891	75,907	331,521
1/1/13	124,798	39,783	85,015	246,506
1/1/14	124,798	29,581	95,217	151,289
1/1/15	124,798	18,155	106,643	44,646
12/31/15	50,000	5,354*	44,646	0
	€798,788	€198,788	€600,000	

*Rounding error is €1.
**Rounding error is €3.

PROBLEM 21-6 (Continued)

(b)

January 1, 2010		
Leased Equipment Under Finance Leases	600,000	
Lease Liability		600,000
Lease Liability	124,798	
Cash		124,798
During 2010		
Lease Executory Expense	5,000	
Cash		5,000
December 31, 2010		
Interest Expense	57,024	
Interest Payable		57,024
Depreciation Expense	91,667	
Accumulated Depreciation—Finance Leases ([€600,000 – €50,000] ÷ 6)		91,667
January 1, 2011		
Interest Payable	57,024	
Interest Expense		57,024
Interest Expense	57,024	
Lease Liability	67,774	
Cash		124,798
During 2011		
Lease Executory Expense	5,000	
Cash		5,000
December 31, 2011		
Interest Expense	48,891	
Interest Payable		48,891
Depreciation Expense	91,667	
Accumulated Depreciation—Finance Leases		91,667

PROBLEM 21-6 (Continued)

(Note to instructor: The guaranteed residual value was subtracted for purposes of determining the depreciable base. The reason is that at the end of the lease term, hopefully, this balance can offset the remaining lease liability balance. To depreciate the leased asset to zero might lead to a large gain in the final years if the asset has a value at least equal to its guaranteed amount.)

PROBLEM 21-7

(a)	December 31, 2010		
	Leased Equipment Under Finance Leases..........	166,794	
	Lease Liability		166,794
	(To record leased asset and related liability at the present value of 5 future annual payments of $40,000 discounted at 10%, $40,000 X 4.16986)		
	Lease Liability	40,000	
	Cash		40,000
	(To record the first rental payment)		
(b)	December 31, 2011		
	Depreciation Expense	23,828	
	Accumulated Depreciation—Finance Leases...		23,828
	(To record depreciation of the leased asset based upon a cost to Ludwick of $166,794 and a life of 7 years)		
	Interest Expense	12,679	
	Lease Liability	27,321	
	Cash		40,000
	(To record annual payment on lease obligation of which $12,679 represents interest at 10% on the unpaid principal of $126,794)		

PROBLEM 21-7 (Continued)

LUDWICK STEEL COMPANY (Lessee)
Lease Amortization Schedule
(Annuity Due Basis)

Date	Annual Lease Payment	Interest (10%) on Liability	Reduction of Lease Liability	Lease Liability
12/31/10	—	—	—	$166,794
12/31/10	$40,000	$ 0	$40,000	126,794
12/31/11	40,000	12,679	27,321	99,473
12/31/12	40,000	9,947	30,053	69,420
12/31/13	40,000	6,942	33,058	36,362
12/31/14	40,000	3,638*	36,362	0

*Rounding error of $2

(c) December 31, 2012

Interest Expense	9,947	
Lease Liability	30,053	
Cash		40,000
(To record annual payment on lease liability of which $9,947 represents interest at 10% on the unpaid principal of $99,473)		
Depreciation Expense	23,828	
Accumulated Depreciation—Finance Leases		23,828
(To record annual depreciation on assets leased)		

PROBLEM 21-7 (Continued)

(d)

LUDWICK STEEL COMPANY
Statement of Financial Position
December 31, 2012

Property, plant, and equipment:		Non-current liabilities:	
		Lease liability	$36,362
Leased equipment under finance leases	$166,794	Current liabilities:	
Less: Accumulated depreciation	47,656	Lease liability	33,058
	$119,138		

PROBLEM 21-8

(a) The $550,000 is the present value of the five annual lease payments of $137,899 less the $6,000 attributable to the payment for taxes, insurance, and maintenance. In other words, it is the present value of five $131,899 payments to be made at the beginning of each year discounted at 10%, (the implicit or incremental rates since the lessee knows the implicit rate). The cost of taxes, insurance, and maintenance represents periodic services to be performed in the future by the lessor and should not be capitalized. The amount capitalized represents the completed service element by the lessor company in that it has made the property available; the taxes, insurance, and maintenance represent the uncompleted, unrendered services of the lessor.

(b)	Leased Equipment Under Finance Leases	550,000	
	Lease Liability		550,000
	($131,899 X Annuity Due Factor for 5 years at 10% = $131,899 X 4.16986 = $550,000)		
	Taxes, Insurance, and Maintenance Expense	6,000	
	Lease Liability	131,899	
	Cash		137,899
(c)	Depreciation Expense	220,000	
	Accumulated Depreciation—Finance Leases		220,000
	($550,000 X 40% = $220,000)		
(d)	Interest Expense	41,810	
	Interest Payable		41,810
	(See amortization schedule)		
(e)	Taxes, Insurance, and Maintenance Expense	6,000	
	Interest Payable	41,810	
	Lease Liability	90,089	
	Cash		137,899

PROBLEM 21-8 (Continued)

CAGE COMPANY (Lessee)
Lease Amortization Schedule

Date	Annual Lease Payment	Interest (10%) on Liability	Reduction of Lease Liability	Lease Liability
1/1/11				$550,000
1/1/11	$131,899		$131,899	418,101
1/1/12	131,899	$41,810	90,089	328,012
1/1/13	131,899	32,801	99,098	228,914

(f)

CAGE COMPANY
Statement of Financial Position
December 31, 2011

Assets		Liabilities	
Property, plant, and equipment:		Non-current:	
Leased property under finance leases	$550,000	Lease liability	$328,012
Less: Accumulated depreciation	220,000	Current:	
	$330,000	Interest payable	41,810
		Lease liability	90,089*

*See Lease Amortization Schedule in part (e) above.

PROBLEM 21-9

Entries on August 1, 2011:

(1)	Leased Equipment Under Finance Leases	2,845,263	
	Lease Liability..		2,845,263

Explanation and computation: This is a finance lease because the lease term exceeds 75% of the asset's useful life.

The leased computer and the related liability are recorded at the present value of the minimum lease payments, excluding the maintenance charge, as follows: (€40,000 – €3,000) X 76.899 = €2,845,263.

(2)	Computer Maintenance Expense.....................	3,000	
	Lease Liability	37,000	
	Cash		40,000

Explanation: This entry is to record the August 1, 2011, first payment under the lease agreement. No interest is recognized on August 1 because the agreement began on that date. Cash payment includes €3,000 of maintenance cost.

Entries on August 31, 2011:

(1)	Interest Expense	28,083	
	Interest Payable...		28,083

Explanation and computation: Interest accrued on the unpaid balance of the lease obligations from August 1 to August 31, 2011, is computed as follows: (€2,845,263 – €37,000) X .01 = €28,083.

(2)	Depreciation Expense.....................................	19,759	
	Accumulated Depreciation—Finance Leases		19,759

Explanation and computation: Depreciation is recorded for one month of the use of computer using the lease term: (€2,845,263 X 1/12 X 1/12 = €19,759).

PROBLEM 21-10

(a) The lease is a sales-type lease because: (1) the lease term exceeds 75% of the asset's estimated economic life, and (2) Moonstruck Company realized an element of profit aside from the financing charge.

1.

Present value of an annuity due of $1 for 10 periods discounted at 10%	6.75902
Annual lease payment	X $ 40,000
Present value of the 10 rental payments	270,361
Add present value of estimated residual value of $20,000 in 10 years at 10% ($20,000 X .38554)	7,711
Lease receivable at inception	$278,072

2. Sales price is $270,361 (the present value of the 10 annual lease payments); or, the initial PV of $278,072 minus the PV of the unguaranteed residual value of $7,711.

3. Cost of sales is $172,289 (the $180,000 cost of the asset less the present value of the unguaranteed residual value).

PROBLEM 21-10 (Continued)

(b)

MOONSTRUCK COMPANY (Lessor)
Lease Amortization Schedule
Annuity Due Basis, Unguaranteed Residual Value

Beginning of Year	Annual Lease Payment Plus Residual Value	Interest (10%) on Lease Receivable	Lease Receivable Recovery	Lease Receivable
	(a)	(b)	(c)	(d)
Initial PV	—	—	—	$278,072
1	$ 40,000	—	$ 40,000	238,072
2	40,000	$ 23,807	16,193	221,879
3	40,000	22,188	17,812	204,067
4	40,000	20,407	19,593	184,474
5	40,000	18,447	21,553	162,921
6	40,000	16,292	23,708	139,213
7	40,000	13,921	26,079	113,134
8	40,000	11,313	28,687	84,447
9	40,000	8,445	31,555	52,892
10	40,000	5,289	34,711	18,181
End of 10	20,000	1,819*	18,181	0
	$420,000	$141,928	$278,072	

*Rounding error is $1.00.

(a) Annual lease payment required by lease contract.
(b) Preceding balance of (d) X 10%, except beginning of first year of lease term.
(c) (a) minus (b).
(d) Preceding balance minus (c).

(c)

Beginning of the Year

Lease Receivable	278,072	
Cost of Goods Sold	172,289	
Sales		270,361
Computer Inventory		180,000
(To record the sale and the cost of goods sold in the lease transaction)		
Selling Expense	4,000	
Cash		4,000
(To record payment of the initial direct costs relating to the lease)		

Cash	**40,000**	
Lease Receivable		**40,000**
(To record receipt of the first lease payment)		
End of the Year		
Interest Receivable	**23,807**	
Interest Revenue		**23,807**
(To record interest earned during the first year of the lease)		

PROBLEM 21-11

(a) **The lease is a finance lease because: (1) the lease term exceeds 75% of the asset's economic life and (2) the present value of the minimum lease payments exceeds 90% of the fair value of the leased asset.**

Initial Liability Under Finance Leases:

Minimum lease payments ($40,000) X PV of an annuity due for 10 periods at 10% (6.75902)................ $270,361

(b)

NATIONAL AIRLINES (Lessee)
Lease Amortization Schedule
(Annuity due basis and URV)

Beginning of Year	Annual Lease Payment	Interest (10%) on Lease Liability	Reduction of Lease Liability	Lease Liability
	(a)	(b)	(c)	(d)
Initial PV	—	—	—	$270,361
1	$ 40,000	—	$ 40,000	230,361
2	40,000	$ 23,036	16,964	213,397
3	40,000	21,340	18,660	194,737
4	40,000	19,474	20,526	174,211
5	40,000	17,421	22,579	151,632
6	40,000	15,163	24,837	126,795
7	40,000	12,680	27,320	99,475
8	40,000	9,948	30,052	69,423
9	40,000	6,942	33,058	36,365
10	40,000	3,635*	36,365	0
	$400,000	$129,639	$270,361	

***Rounding error is $1.**

(a) Annual lease payment required by lease contract.
(b) Preceding balance of (d) X 10%, except beginning of first year of lease term.
(c) (a) minus (b).
(d) Preceding balance minus (c).

PROBLEM 21-11 (Continued)

(c) Lessee's journal entries:

Beginning of the Year		
Leased Equipment Under Finance Leases...........	270,361	
Lease Liability		270,361
(To record the lease of computer equipment using finance lease method)		
Lease Liability	40,000	
Cash		40,000
(To record the first rental payment)		
End of the Year		
Interest Expense	23,036	
Interest Payable		23,036
(To record accrual of annual interest on lease liability)		
Depreciation Expense	27,036	
Accumulated Depreciation—Leased Equipment		27,036
(To record depreciation expense for first year [$270,361 ÷ 10])		

PROBLEM 21-12

(a)

GRISHELL SHIPPING COMPANY
Schedule to Compute the Discounted Present Value of Terminal Facilities and the Related Obligation
January 1, 2010

Present value of first 10 payments:		
Immediate payment....................................	£ 800,000	
Present value of an ordinary annuity for 9 years at 6% (£800,000 X 6.801692)........	5,441,354	£6,241,354
Present value of last 10 payments:		
First payment of £320,000	320,000	
Present value of an ordinary annuity for 9 years at 6% (£320,000 X 6.801692)........	2,176,541	
Present value of last 10 payments at January 1, 2020	2,496,541	
Discount to January 1, 2010 (£2,496,541 X .558395)		1,394,056
Discounted present value of terminal facilities and related obligation		£7,635,410

(Note to instructor: The student can compute the £6,241,354 by using the present value of an annuity due for 10 periods at 6% (7.80169 X £800,000 = £6,241,352; £2 rounding difference). For the last ten periods, the present value of an annuity due for 20 periods less the present value of an annuity due for 10 periods can be used as follows: ([12.15812 – 7.80169] X £320,000 = £1,394,058; £2 difference due to rounding.)

(b) (1) **January 1, 2012**

Interest Payable..	384,480	
Lease Liability	415,520	
Property Taxes Expense	125,000	
Property Insurance Expense.............................	23,000	
Cash		948,000

PROBLEM 21-12 (Continued)

Partial Amortization Schedule
(Annuity Due Basis)

Date	Lease Payment	Executory Costs	Interest (6%) on Lease Liability	Reduction of Lease Liability	Lease Liability
1/1/10	—	—	—	—	£7,600,000
1/1/10	£948,000	£148,000	£ 0	£800,000	6,800,000
1/1/11	948,000	148,000	408,000	392,000	6,408,000
1/1/12	948,000	148,000	384,480	415,520	5,992,480
1/1/13	948,000	148,000	359,549	440,451	5,552,029

(2) December 31, 2012

Depreciation Expense—Finance Leases..............	190,000	
Accumulated Depreciation—Leased Assets...		190,000
(To record annual depreciation expense on leased assets) (£7,600,000 ÷ 40)		

Note: The leased asset is depreciated over its economic life because a bargain purchase is available at the end of the lease term.

(3) December 31, 2012

Interest Expense..	359,549	
Interest Payable		359,549
(To record interest accrual at 6% on outstanding debt of £5,992,480)		

PROBLEM 21-13

(a) The noncancelable lease is a sales-type lease because: (1) the lease term is for a major part [83% (10 ÷ 12)] of the economic life of the leased asset, (2) the present value of the minimum lease payments exceeds 90% of the fair value of the leased property, and (3) the lease provides the lessor with manufacturer's profit in addition to interest revenue.

1. Lease Receivable:

Present value of annual payments of $60,000 made at the beginning of each period for 10 years, $60,000 X 6.75902 (PV of an annuity due @ 10%)	**$405,541**
Present value of guaranteed residual value, $15,000 X .38554	**5,783**
Present value of minimum lease payments	**$411,324**

2. Sales price is the same as the present value of minimum lease payments... **$411,324**

3. Cost of sales is the cost of manufacturing the x-ray machine **$250,000**

PROBLEM 21-13 (Continued)

(b)

AMIRANTE INC. (Lessor)
Lease Amortization Schedule
(Annuity due basis, guaranteed residual value)

Beginning of Year	Annual Lease Payment Plus Residual Value	Interest (10%) on Lease Receivable	Recovery of Lease Receivable	Lease Receivable
	(a)	(b)	(c)	(d)
Initial PV	—	—	—	$411,324
1	$ 60,000	—	$ 60,000	351,324
2	60,000	$ 35,132	24,868	326,456
3	60,000	32,646	27,354	299,102
4	60,000	29,910	30,090	269,012
5	60,000	26,901	33,099	235,913
6	60,000	23,591	36,409	199,504
7	60,000	19,950	40,050	159,454
8	60,000	15,945	44,055	115,399
9	60,000	11,540	48,460	66,939
10	60,000	6,694	53,306	13,633
End of 10	15,000	1,367*	13,633	0
	$615,000	$203,676	$411,324	

*Rounding error is $4.00.

(a) Annual lease payment required by lease contract.
(b) Preceding balance of (d) X 10%, except beginning of first year of lease term.
(c) (a) minus (b).
(d) Preceding balance minus (c).

(c) Lessor's journal entries:

Beginning of the Year

Lease Receivable	411,324	
Cost of Goods Sold	250,000	
Sales		411,324
X-ray Machine Inventory		250,000
Selling Expense	14,000	
Cash or Payable		14,000
(To record the incurrence of initial direct costs relating to the lease)		

PROBLEM 21-13 (Continued)

Cash	**60,000**	
Lease Receivable		**60,000**
(To record receipt of the first lease payment)		

End of the Year

Interest Receivable	**35,132**	
Interest Revenue		**35,132**
(To record interest earned during the first year of the lease)		

PROBLEM 21-14

(a) The noncancelable lease is a finance lease because: (1) the lease term is for a major part [83% (10 ÷ 12)] of the economic life of the leased asset and (2) the present value of the minimum lease payments exceeds 90% of the fair value of the leased asset.

Initial Liability Under Finance Lease:

PV of lease payments, $60,000 X 6.75902........................	$405,541
PV of guaranteed residual value, $15,000 X .38554........	5,783
Initial liability under finance lease....................................	$411,324

(b)

CHAMBERS MEDICAL (Lessee)
Lease Amortization Schedule
(Annuity Due Basis, GRV)

Beginning of Year	Annual Lease Payment Plus GRV	Interest (10%) on Unpaid Liability	Reduction of Lease Liability	Lease Liability
	(a)	(b)	(c)	(d)
Initial PV	—	—	—	$411,324
1	$ 60,000	—	$ 60,000	351,324
2	60,000	$ 35,132	24,868	326,456
3	60,000	32,646	27,354	299,102
4	60,000	29,910	30,090	269,012
5	60,000	26,901	33,099	235,913
6	60,000	23,591	36,409	199,504
7	60,000	19,950	40,050	159,454
8	60,000	15,945	44,055	115,399
9	60,000	11,540	48,460	66,939
10	60,000	6,694	53,306	13,633
End of 10	15,000	1,367*	13,633	0
	$615,000	$203,676	$411,324	

*Rounding error is $4.

(a) Annual lease payment required by lease contract.
(b) Preceding balance of (d) X 10%, except beginning of first year of lease term.
(c) (a) minus (b).
(d) Preceding balance minus (c).

PROBLEM 21-14 (Continued)

(c) Lessee's journal entries:

Beginning of the Year		
Leased Equipment Under Finance Leases	411,324	
Lease Liability..		411,324
(To record the lease of x-ray equipment using finance lease method)		
Lease Liability	60,000	
Cash		60,000
(To record payment of annual lease liability)		
End of the Year		
Interest Expense	35,132	
Interest Payable...		35,132
(To record accrual of annual interest on lease liability)		
Depreciation Expense...	39,632	
Accumulated Depreciation—Leased Assets..		39,632
(To record depreciation expense for year 1 using straight-line method [($411,324 – $15,000) ÷ 10 years])		

PROBLEM 21-15

Memorandum Prepared by: (Your Initials)
Date:

HOCKNEY, INC.
December 31, 2011
Reclassification of Leased Auto
As a Finance Lease

While performing a routine inspection of the client's garage, I found a 2010 Shirk automobile which was not listed among the company's assets in the equipment subsidiary ledger. I asked Stacy Reeder, plant manager, about the vehicle, and she indicated that because the Shirk was only being leased, it was not listed along with other company assets. Having accounted for this agreement as an operating lease, Hockney, Inc. had charged $3,240 to 2011 rent expense.

Examining the noncancelable lease agreement entered into with Crown New and Used Cars on January 1, 2011, I determined that the Shirk should be capitalized because its lease term (4 years) is greater than 75% of its useful life (5 years).

I advised the client to capitalize this lease at the present value of its minimum lease payments: $10,731 (the present value of the monthly payments), plus $809 (the present value of the guaranteed residual). The following journal entry was suggested:

Leased Asset Under Finance Leases	11,540	
Lease Liability ($10,731 + $809)		11,540

To account for the first year's payments as well as to reverse the original entries, I advised the client to make the following entry:

Lease Liability	2,317	
Interest Expense (8% X $11,540)	923	
Rent Expense		3,240

PROBLEM 21-15 (Continued)

Finally, this Shirk must be depreciated over its lease term. Using straight-line, I computed annual depreciation of $2,610 (the capitalized amount, $11,540, minus the guaranteed residual, $1,100, divided by the 4 year lease term). The client was advised to make the following entry to record 2011 depreciation:

Depreciation Expense..	**2,610**	
Accumulated Depreciation.....................................		**2,610**

PROBLEM 21-16

(a) The lease agreement satisfies both the economic life (75% of useful life) and the recovery of investment (90% of fair value) requirements. For the lessee, it is a finance lease, and for the lessor, it is a direct-financing lease (since cost equals fair value).

(b) January 1, 2011

Lessee:

Leased Equipment Under Finance Leases	220,404	
Lease Liability		220,404
(€30,300 X 6.99525 = €211,956		
€20,000 X .42241 = 8,448		
= €220,404)		
Lease Liability	30,300	
Cash		30,300

January 1, 2011

Lessor:

Lease Receivable	220,404	
Equipment		220,404
Cash	30,300	
Lease Receivable		30,300

December 31, 2011

Lessee:

Interest Expense	17,109	
Interest Payable [(€220,404 – €30,300) X .09]		17,109
Depreciation Expense	20,040	
Accumulated Depreciation [(€220,404 – €20,000) ÷ 10]		20,040

December 31, 2011

Lessor:		
Interest Receivable	17,109	
Interest Revenue		17,109

(c) (1) and (2) are both €211,956, as the lessee has no obligation to pay the residual value.

(d) (1) and (2) are both €220,404, as residual value exists whether or not it is guaranteed.

(e) Since 90% of €220,404 is €198,364, the difference of €22,040 is the present value of the residual value. The future value of €22,040 for n = 10, i = .09 is €52,177 (€22,040 X 2.36736). Therefore, the residual value would have had to be greater than €52,177.

TIME AND PURPOSE OF CONCEPTS FOR ANALYSIS

CA 21-1 (Time 15–25 minutes)
Purpose—to provide the student with an understanding of the theoretical reasons for requiring certain leases to be capitalized by the lessee and how a finance lease is recorded at its inception and how the amount to be recorded is determined. The student explains how to determine the lessee's expenses during the first year and how the lessee will report the lease on the statement of financial position at the end of the first year.

CA 21-2 (Time 25–35 minutes)
Purpose—to provide an understanding of the factors underlying the accounting for a leasing arrangement from the point of view of both the lessee and lessor. The student is required to determine the classification of this leasing arrangement, the appropriate accounting treatment which should be accorded this lease, and the financial statement disclosure requirements for both the lessee and lessor.

CA 21-3 (Time 20–30 minutes)
Purpose—to provide the student with an understanding of the classification of three leases. The student determines how the lessee should classify each lease, what amount should be recorded as a liability at the inception of each lease, and how the lessee should record each minimum lease payment for each lease.

CA 21-4 (Time 15–25 minutes)
Purpose—to provide the student with an assignment to describe: (a) the accounting for a finance lease both at inception and during the first year and (b) the accounting for an operating lease. The student is also required to compare and contrast a sales-type lease with a direct-financing lease.

CA 21-5 (Time 30–35 minutes)
Purpose—to provide the student with a lease situation containing a bargain purchase option and both an implicit rate and a stated interest rate between which the student must choose. The student is required to compute the appropriate amount at which to capitalize the lease and, in a second requirement, given different interest rates, to prepare the statement of financial position and income statement presentation of this lease by the lessee.

CA 21-6 (Time 20–25 minutes)
Purpose—to provide the student with a lease arrangement with a bargain-purchase option in order to examine the ethical issues of lease accounting.

***CA 21-7** (Time 15–25 minutes)
Purpose—to provide the student with an assignment to discuss the theoretical justification for lease capitalization. In addition, the student is required to discuss the accounting issues related to a sale-leaseback.

***CA 21-8** (Time 20–25 minutes)
Purpose—to provide the student with a sale-leaseback situation to which lease capitalization criteria need to be applied, as well as disclosures discussed and the sale accounted for.

SOLUTIONS TO CONCEPTS FOR ANALYSIS

CA 21-1

(a) When a lease transfers substantially all of the benefits and risks incident to the ownership of property to the lessee, it should be capitalized by the lessee. The economic effect of such a lease on the lessee is similar, in many respects, to that of an installment purchase.

(b) Evans should account for this lease at its inception as an asset and a liability at an amount equal to the present value at the beginning of the lease term of minimum lease payments during the lease term, excluding that portion of the payments representing executory costs, together with any profit thereon. However, if the amount so determined exceeds the fair value of the leased machine at the inception of the lease, the amount recorded as the asset and liability should be the machine's fair value.

(c) Evans will incur interest expense equal to the interest rate used to capitalize the lease at its inception multiplied by the appropriate net carrying value of the liability at the beginning of the period.

In addition, Evans will incur an expense relating to depreciation of the capitalized cost of the leased asset. This depreciation should be based on the estimated useful life of the leased asset and depreciated in a manner consistent with Evans' normal depreciation policy for owned assets.

(d) The asset recorded under the finance lease and the accumulated depreciation should be classified on Evans' December 31, 2011, statement of financial position as non-current and should be separately identified by Evans in its statement of financial position or notes thereto. The related liability recorded under the finance lease should be reported on Evans' December 31, 2011, statement of financial position appropriately classified into current and non-current liabilities categories and should be separately identified by Evans in its statement of financial position.

CA 21-2

(a) 1. Because the present value of the minimum lease payments is greater than 90 percent of the fair value of the asset at the inception of the lease, Sylvan should record this as a finance lease.

2. Since the given facts state that Sylvan (lessee) does not have access to information that would enable determination of Breton Leasing Corporation's (lessor) implicit rate for this lease, Sylvan should determine the present value of the minimum lease payments using the incremental borrowing rate (10 percent). This is the rate that Sylvan would have to pay for a like amount of debt obtained through normal third party sources (bank or other direct financing).

3. The amount recorded as an asset on Sylvan's books should be shown in the fixed assets section of the statement of financial position as "Leased Equipment Under Finance Leases" or another similar title. Of course, at the same time as the asset is recorded, a corresponding liability ("Lease Liability" or similar titles) is recognized in the same amount. This liability is classified as both current and non-current, with the current portion being that amount that will be paid on the principal amount during the next year. The cost of the lease is recorded in the same period as revenue through depreciation taken on the machine over the life of the lease. Since ownership of the machine is not expressly conveyed to Sylvan in the terms of the lease at its inception, the term of the lease is the appropriate depreciable life. The minimum lease payments represent a payment of principal and interest at each payment

date. Interest expense is computed at the rate at which the minimum lease payments were discounted and

CA 21-2 (Continued)

represents a fixed interest rate applied to the declining balance of the debt. Executory costs (such as insurance, maintenance, or taxes) paid by Sylvan are charged to an appropriate expense, accrual, or deferral account as incurred or paid.

4. For this lease, Sylvan must disclose the future minimum lease payments in the aggregate and for the next year, years 2–5, and thereafter, with a separate deduction for the total amount for imputed interest necessary to reduce the net minimum lease payments to the present value of the liability (as shown on the statement of financial position).

(b) 1. Based on the given facts, Breton has entered into a direct-financing lease. There is no dealer or manufacturer profit included in the transaction, and the discounted present value of the minimum lease payments is in excess of 90 percent of the fair value of the asset at the inception of the lease arrangement.

2. Breton should record a Lease Receivable for the present value of the minimum lease payments and the present value of the residual value. It should also remove the machine from the books by a credit to the applicable asset account.

3. During the life of the lease, Breton will record payments received as a reduction in the receivable. Interest is recognized as interest revenue earned by applying the implicit interest rate to the declining balance of the lease receivable. The implicit rate is the rate of interest that will discount the sum of the payments and unguaranteed residual value to the fair value of the machine at the date of the lease agreement. This method of earnings recognition is termed the effective-interest method of amortization. In this case, Breton will use the 9% implicit rate.

4. Breton must make the following disclosures with respect to this lease:

(a) The components of the lease receivable in direct-financing leases, which are (1) the future minimum lease payments to be received, (2) any unguaranteed residual values accruing to the benefit of the lessor, and (3) the amounts of unearned interest revenue.

(b) Future minimum lease payments to be received for the next year, years 2–5, and thereafter as of the date of the latest statement of financial position presented.

CA 21-3

(a) A lease should be classified as a finance lease when it transfers substantially all of the benefits and risks inherent to the ownership of property by meeting any one of the four criteria established by **IFRS** for classifying a lease as a finance lease.

Lease L should be classified as a finance lease because the lease term is equal to 85 percent of the estimated economic life of the equipment, which exceeds the 75 percent or more criterion.

Lease M should be classified as a finance lease because the lease contains a bargain-purchase option.

Lease N should be classified as an operating lease because it does not meet any of the four criteria for classifying a lease as a finance lease.

CA 21-3 (Continued)

(b) For Lease L, Santiago Company should record as a liability at the inception of the lease an amount equal to the present value at the beginning of the lease term of the minimum lease payments during the lease term. This amount excludes that portion of the payments representing executory costs such as insurance, maintenance, and taxes to be paid by the lessor, including any profit thereon. However, if the amount so determined exceeds the fair value of the equipment at the inception of the lease, the amount recorded as a liability should be the fair value.

For Lease M, Santiago Company should record as a liability at the inception of the lease an amount determined in the same manner as for Lease L, and the payment called for in the bargain-purchase option should be included in the minimum lease payments at its present value.

For Lease N, Santiago Company should not record a liability at the inception of the lease.

(c) For Lease L, Santiago Company should allocate each minimum lease payment between a reduction of the liability and interest expense so as to produce a constant periodic rate of interest on the remaining balance of the liability.

For Lease M, Santiago Company should allocate each minimum lease payment in the same manner as for Lease L.

For Lease N, Santiago Company should charge minimum lease (rental) payments to rental expense as they become payable.

CA 21-4

Part 1

(a) A lessee would account for a finance lease as an asset and a liability at the inception of the lease. Rental payments during the year would be allocated between a reduction in the liability and interest expense. The asset would be amortized in a manner consistent with the lessee's normal depreciation policy for owned assets, except that in some circumstances, the period of amortization would be the lease term.

(b) No asset or liability would be recorded at the inception of the lease. Normally, rental on an operating lease would be charged to expense over the lease term as it becomes payable.

Part 2

(a) The lease receivable in the lease is the same for both a sales-type and a direct-financing lease. The lease receivable is the present value of the minimum lease payments (net of amounts, if any, included therein for executory costs such as maintenance, taxes, and insurance to be paid by the lessor, together with any profit thereon) plus the present value of the unguaranteed residual value accruing to the benefit of the lessor.

(b) For both a sales-type lease and a direct-financing lease, the interest revenue is recognized over the lease term by use of the interest method to produce a constant periodic rate of return on the lease receivable. However, other methods of income recognition may be used if the results obtained are not materially different from the interest method.

CA 21-4 (Continued)

(c) In a sales-type lease, the excess of the sales price over the carrying amount of the leased equipment is considered manufacturer's or dealer's profit and would be included in income in the period when the lease transaction is recorded.

In a direct-financing lease, there is no manufacturer's or dealer's profit. The income on the lease transaction is composed solely of interest.

CA 21-5

(a) The appropriate amount for the leased aircraft on Albertsen Corporation's statement of financial position after the lease is signed is £1,000,000, the fair value of the plane. In this case, fair value is less than the present value of the net rental payments plus purchase option (£1,022,226). When this occurs, the asset is recorded at the fair value.

(b) The leased aircraft will be reflected on Albertsen Corporation's statement of financial position as follows:

Non-current assets	
Leased property under finance leases	£1,000,000
Less: Accumulated depreciation	61,667
	£ 938,333
Non-current liabilities	
Lease liability (Note A)	£ 802,040
Current liabilities	
Lease liability	
Interest payable	£ 77,600
Lease liability (Note A)	60,180
	£ 137,780

The following items relating to the leased aircraft will be reflected on Albertsen Corporation's income statement:

Depreciation expense (Note A)	£61,667
Interest expense	77,600
Maintenance expense	6,900
Insurance and tax expense	4,000

Note A

The company leases a Viking turboprop aircraft under a finance lease. The lease runs until December 31, 2020. The annual lease payment is paid in advance on January 1 and amounts to £141,780, of which £4,000 is for insurance and property taxes. The aircraft is being depreciated on the straight-line basis over the economic life of the asset. The depreciation on the aircraft included in the current year's depreciation expense and the accumulated depreciation on the aircraft amount to £61,667.

CA 21-5 (Continued)

Computations

Depreciation expense:	
Capitalized amount	£1,000,000
Less: Salvage value	75,000
	£ 925,000
Economic life	15 years
Annual depreciation	£61,667
Liability amounts:	
Lease liability 1/1/11	£1,000,000
Less: Payment 1/1/11	137,780
Lease liability 12/31/11	862,220
Less: Lease payment due 1/1/12	137,780
Add: Interest on lease (£862,220 X .09)	77,600
Noncurrent liability 12/31/11	£ 802,040

CA 21-6

(a) The ethical issues are fairness and integrity of financial reporting versus profits and possibly misleading financial statements. On one hand, if Buchanan can substantiate her position, it is possible that the agreement should be considered an operating lease. On the other hand, if Buchanan cannot or will not provide substantiation, she would appear to be trying to manipulate the financial statements for some reason, possibly debt covenants or minimum levels of certain ratios.

(b) If Buchanan has no particular expertise in copier technology, she has no rational case for her suggestion. If she has expertise, then her suggestion may be rational and would not be merely a means to manipulate the statement of financial position to avoid recording a liability.

(c) Suffolk must decide whether the situation presents a legitimate difference of opinion where professional judgment could take the answer either way or an attempt by Buchanan to mislead. Suffolk must decide whether he wishes to argue with Buchanan or simply accept Buchanan's position. Suffolk should assess the consequences of both alternatives. Suffolk might conduct further research regarding copier technology before reaching a decision.

*CA 21-7

(a) The economic effect of a long-term finance lease on the lessee is similar to that of an installment purchase. Such a lease transfers substantially all of the benefits and risks incident to the ownership of property to the lessee. Therefore, the lease should be capitalized.

(b) 1. Perriman should account for the sale portion of the sale-leaseback transaction at January 1, 2011, by recording cash for the sale price, decreasing equipment at the undepreciated cost (net carrying amount) of the equipment, and establishing a deferred gain on sale-leaseback for the excess of the sale price of the equipment over its undepreciated cost (net carrying amount).

*CA 21-7 (Continued)

2. Perriman should account for the leaseback portion of the sale-leaseback transaction at January 1, 2011, by recording both an asset and a liability at an amount equal to the present value at the beginning of the lease term of minimum lease payments during the lease term, excluding any portion of the payments representing executory costs, together with any profit. However, if the present value exceeds the fair value of the leased equipment at January 1, 2011, the amount recorded for the asset and liability should be the equipment's fair value.

(c) The deferred gain should be amortized over the lease term or life of the asset, whichever is appropriate. During the first year of the lease, the amortization will be an amount proportionate to the amortization of the asset. This deferral and amortization method for a sale-leaseback transaction is required because the sale and the leaseback are two components of a single transaction rather than two independent transactions. Because of this interdependence of the sale and leaseback portions of the transaction, the gain (unearned profit) should be deferred and amortized over the lease term.

*CA 21-8

(a) 1. Comparisons of an equipment's fair value to its lease payments' present value, and of its useful life to the lease term, are used to determine whether the lease is equivalent to an installment sale and is therefore a finance lease.

2. A lease is categorized as a finance lease if, at the date of the lease agreement, it meets any one of four criteria. As the lease has no provision for Shellhammer to reacquire ownership of the equipment, it fails the two criteria of transfer of ownership at the end of the lease and a bargain purchase option. Shellhammer's lease payments, with a present value equaling 80% of the equipment's fair value, fail the criterion for a present value equaling or exceeding substantially all (90%) of the equipment's fair value. However, the lease would be classified as a finance lease because its term of 85% of the equipment's estimated useful life exceeds the criterion of being the major part (at least 75%) of the equipment's estimated useful life.

(b) Shellhammer should account for the sale portion of the sale-leaseback transaction at December 31, 2010, by increasing cash for the sale price, decreasing equipment by the carrying amount, and recognizing a loss for the excess of the equipment's carrying amount over its sale price.

(c) On the December 31, 2011, statement of financial position, the equipment should be included as a plant asset at the lease payments' present value at December 31, 2010, less 2011 depreciation.

On the December 31, 2011, statement of financial position, the lease liability will equal the lease payments' present value at December 31, 2010, less principal repaid December 31, 2011. This amount will be reported in current liabilities for the principal to be repaid in 2012, and the balance in non-current liabilities.

FINANCIAL REPORTING PROBLEM

(a) M&S uses both finance leases and operating leases.

(b) M&S reported finance leases of £83.5 million in total, and £11.6 million for less than 1 year.

(c) M&S disclosed future minimum rentals (in millions) under non-cancelable operating lease agreements as of 29 March 2008, of:

Not later than one year	£ 17.9
Later than one year and not later than five years	90.4
Later than five years and not later than 25 years	2,223.6
Later than 25 years	1,492.4
Total	£3,824.3

COMPARATIVE ANALYSIS CASE

(a) Air France uses both finance leases and operating leases on its aircraft, buildings, and other property, plant, and equipment.

(b) Some of Air France's leases are longer than five years. Some characteristics of the leases are the assets held under a finance lease are recognized as assets at the lower of the following two values: the present value of the minimum lease payments under the lease arrangement or their fair value determined at inception of the lease. The corresponding obligation to the lessor is accounted for as long-term debt. These assets are depreciated over the shorter of the useful life of the assets and the lease term when there is no reasonable certainty that the lessee will obtain ownership by the end of the lease term.

(c) Future minimum commitments under non-cancelable leases are set forth below (in millions):

	Finance	Operating
One year	€ 669	€ 992
Two years	634	904
Three years	644	733
Four years	412	665
Five years	469	589
Over 5 years	1,967	1,501
	€4,795	€5,384

(d) At year-end 2009, the present value of minimum lease payments under capital leases was €3,893 million. Imputed interest deducted from the future minimum annual rental commitments was €902 million.

(e) The details of rental expense (in millions) are set forth below:

2009	2008
€646	€611

(f) British Airways uses leases for its aircraft fleet and property and equipment, while Air France uses leases for its aircraft, buildings, and other property, plant, and equipment. Both companies have leases that extend beyond five years, while some of British Airways leases extend up to 150 years. Air France did not give a definite length for the leases that extend beyond five years. In general, the two companies rely on both finance and operating leases for its aircrafts and they have lease commitments for more than five years into the future.

FINANCIAL STATEMENT ANALYSIS CASE

(a) **The total obligations under finance leases at year-end 2008 for Delhaize is €1,687,000 (the present value of the future lease payments).**

(b) **The total rental expense for Delhaize in 2008 was €245,000,000.**

(c) **To estimate the present value of the operating leases, the same portion of interest to net minimum lease payments under finance leases must be determined. For example, the following proportion for capital leases as of December 31, 2008, is 53.5% or (€790,000/€1,477,000). The total payments under operating leases are €2,185,000 and, therefore, the amount representing interest might be estimated to be €1,168,975 or (€2,185,000 X 53.5%). Thus, the present value of the net operating payments might be €1,016,025.**

Total operating lease payments due	**€2,185,000**
Less estimated interest	**1,168,975**
Estimated present value of net operating lease payments	**€1,016,025**

This answer is an approximation. This answer is somewhat incorrect because the proportion of payments after five years may be different between an operating and finance lease arrangement. Another approach would be to discount the future operating lease payments. However, from the information provided, it is difficult to determine exactly what the payment schedules are beyond five years, although it is likely that the operating leases have shorter payment schedules and therefore higher present values. In addition, selecting the appropriate discount rate requires judgment. Some companies provide the present value of the operating leases in order to curb speculation as to what this amount should be.

ACCOUNTING, ANALYSIS, AND PRINCIPLES

ACCOUNTING

There are four lease capitalization criteria. They are (1) transfer of title, (2) bargain-purchase option, (3) lease term is a major part (75% or more) of the economic life of the leased asset, and (4) the present value of the minimum lease payments is substantially all (90% or more) of the leased asset's fair value.

This lease does not transfer title. The option to purchase at the end of the lease is clearly not a bargain. The lease term is (3 ÷ 5) = 0.6 or 60% of the economic life, so the economic life test is not met. The recovery of investment test is as follows:

Minimum lease payments
= rental payments – executory costs
= $3,557.25 – $500 = $3,057.25.

Present value of min. lease payments
= $3,057.25 X (PVF-AD$_{3,12}$)
= ($3,057.25 X 2.69005)
= $8,224.16.

Present value of min. lease payments as % of fair value
= $8,224.16 ÷ $10,000 = 0.8224 or 82.24 percent.

Therefore, the recovery of investment test is not met either. Therefore, this lease is accounted for as an operating lease. Therefore the journal entry that Salaur makes on January 1, 2011 is:

Rent Expense	**3,557.25**	
Cash		**3,557.25**

ANALYSIS

When companies structure leases to avoid capitalization, both the leased asset and the liability for the noncancelable lease payments are "off-balance-sheet." As a result, the denominator of the return on assets ratio (ROA = Net income ÷ Average assets) will be understated, and a company will look more profitable than it really is. The debt to total assets ratio (Total debt ÷ Total assets) will be understated, thereby giving the impression that the company is more solvent than is really the case. If companies capitalize differing percentages of their leases, it will be difficult to compare the companies based on ROAs and debt to total asset ratios.

PRINCIPLES

The fundamental quality of faithful representation is being addressed in this case. The lease criteria are designed to report leases according to their economic substance. Thus, if through a lease arrangement a company controls the risks and rewards of the leased asset, it meets the definition of an asset and should be recognized on the statement of financial position. Similarly, the associated liability should be recognized if it represents an unavoidable obligation and thereby meets the definition of a liability. That is, the financial statements faithfully represent if they report all assets and liabilities of the company. Of course, structuring a lease to avoid capitalization detracts from representational faithful reporting of the lease arrangement.

PROFESSIONAL RESEARCH

(a) According to IAS 17, paragraph 7, "The classification of leases adopted in this Standard is based on the extent to which risks and rewards incidental to ownership of a leased asset lie with the lessor or the lessee. Risks include the possibilities of losses from idle capacity or technological obsolescence and of variations in return because of changing economic conditions. Rewards may be represented by the expectation of profitable operation over the asset's economic life and of gain from appreciation in value or realisation of a residual value."

Also, paragraph 8 states "A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership. A lease is classified as an operating lease if it does not transfer substantially all the risks and rewards incidental to ownership."

(b) IAS 17 does not define "substantially all."

(c) IAS 17 does not name other considerations in determining "lease term," but paragraph 4 defines "lease term" as "the non-cancellable period for which the lessee has contracted to lease the asset together with any further terms for which the lessee has the option to continue to lease the asset, with or without further payment, when at the inception of the lease it is reasonably certain that the lessee will exercise the option."

PROFESSIONAL SIMULATION 1

Resources

Note: This lease is a finance lease to the lessee because the lease term (six years) exceeds the major part (75%) of the economic life of the asset (six years). Also, the present value of the minimum lease payments exceeds substantially all (90%) of the fair value of the asset.

$ 81,365	**Annual rental payment**
X 4.60478	**PV of an annuity due of 1 for n = 6, i = 12%**
$ 374,668	**PV of periodic rental payments**
$ 50,000	**Guaranteed residual value**
X .50663	**PV of 1 for n = 6, i = 12%**
$ 25,332	**PV of guaranteed residual value**
$ 374,668	**PV of periodic rental payments**
+ 25,332	**PV of guaranteed residual value**
$ 400,000	**PV of minimum lease payments**

Evans Farms (Lessee)
Lease Amortization Schedule

	A	C	E	G	I
10	Date	Lease Payment	Interest Expense	Reduction of Lease Liability	Balance of Lease Liability
11	January 1, 2010				$400,000.00
12	January 1, 2010	$81,365	0	$81,365.00	318,635.00
13	January 1, 2011	81,365	38,236.20	43,128.80	275,506.20
14	January 1, 2012	81,365	33,060.74	48,304.26	227,201.94
15	January 1, 2013	81,365	27,264.23	54,100.77	173,101.18
16	January 1, 2014	81,365	20,772.14	60,592.86	112,508.32
17	January 1, 2015	81,365	13,501.00	67,864.00	44,644.32
18	December 31, 2015	50,000	5,357.32	44,642.68	1.63
19		$538,190	$138,191.63	$399,998.37	

The following formula is inserted into the cells in this column: =0.12*I11

The following function is in inserted into the cells in this column: =C12-E12

The following function is inserted into the cells in this column: =I11-G12

Difference due to rounding.

The following function is inserted into this cell:=SUM(G12:G18)

Journal Entries

January 1, 2010		
Leased Equipment Under Finance Leases	400,000	
Lease Liability		400,000
Lease Liability	81,365	
Cash		81,365
During 2010		
Lease Executory Expense	4,000	
Cash		4,000
December 31, 2010		
Interest Expense	38,236	
Interest Payable		38,236
Depreciation Expense	58,333	
Accumulated Depreciation—Finance Leases ([$400,000 – $50,000] ÷ 6)		58,333
January 1, 2011		
Interest Payable	38,236	
Interest Expense		38,236
Interest Expense	38,236	
Lease liability	43,129	
Cash		81,365
During 2011		
Lease Executory Expense	4,000	
Cash		4,000
December 31, 2011		
Interest Expense	33,061	
Interest Payable		33,061
Depreciation Expense	58,333	
Accumulated Depreciation—Finance Leases		58,333

PROFESSIONAL SIMULATION 1 (Continued)

(Note to instructor: The guaranteed residual value was subtracted for purposes of determining the depreciable base. The reason is that at the end of the lease term, this balance will offset the remaining lease obligation balance. To depreciate the leased asset to zero might lead to a large gain in the final years if the residual value has a value at least equal to its guaranteed amount.)

PROFESSIONAL SIMULATION 2

Explanation

This is a finance lease to Dexter Labs since the lease term (5 years) is greater than 75% of the economic life (6 years) of the leased asset. The lease term is a major part [$83^1/_3$% (5 ÷ 6)] of the asset's economic life.

Measurement

Computation of present value of minimum lease payments:

$8,668 X 4.16986* = $36,144

*Present value of an annuity due of 1 for 5 periods at 10%.

Journal Entries

1/1/10	Leased Machine Under Finance Leases......	36,144	
	Lease Liability..		36,144
	Lease Liability...	8,668	
	Cash...		8,668
12/31/10	Depreciation Expense	7,229	
	Accumulated Depreciation—		
	Finance Leases..................................		7,229
	($36,144 ÷ 5 = $7,229)		
	Interest Expense	2,748	
	Interest Payable		
	[($36,144 – $8,668) X .10]		2,748
1/1/11	Lease Liability..	5,920	
	Interest Payable	2,748	
	Cash...		8,668

CHAPTER 22

Accounting for Changes and Error Analysis

ASSIGNMENT CLASSIFICATION TABLE (BY TOPIC)

Topics		Questions	Brief Exercises	Exercises	Problems	Concepts for Analysis
1.	Differences between change in principle, change in estimate, errors.	2, 4, 6, 7, 8, 9, 12, 13, 15, 21, 22, 23		8	3	1, 2, 3, 4
2.	Accounting changes:					
a.	Comprehensive.				3, 6, 7	1, 2, 4, 5
b.	Changes in estimate, changes in depreciation methods.	8, 9	4, 5, 9	6, 7, 8, 9, 10, 11, 12,	1, 2, 4, 6, 7	1, 2, 3, 4, 5, 6
c.	Changes in accounting for long-term construction contracts.	2, 10	1, 2, 10	1, 8, 13	3	1, 2
d.	Change from FIFO to average cost.		10	8, 14	5	3
e.	Change from average cost to FIFO.	2, 11	3	2, 3, 5, 8, 14	2	1, 2
f.	Miscellaneous.	1, 3, 4, 5,8	8, 9, 10			1, 5
3.	Correction of an error.					
a.	Comprehensive.	8, 14, 15,17	8, 9, 10	8, 15, 16, 18, 19, 20, 21	3, 6, 7, 8, 9, 10	2, 3, 4
b.	Depreciation.	2, 18, 20	6, 7	9, 15, 17, 18	1, 6, 8	
c.	Inventory.	9, 16, 19	10	7, 17, 18	2, 10	1, 2

ASSIGNMENT CLASSIFICATION TABLE (BY LEARNING OBJECTIVE)

Learning Objectives	Brief Exercises	Exercises	Problems
1. Identify the two types of accounting changes.			
2. Describe the accounting for changes in accounting policies.			1
3. Understand how to account for retrospective accounting changes.	1, 2, 3, 9, 10	1, 2, 3, 4, 5, 8, 13, 14	2, 3, 5
4. Understand how to account for impracticable changes.			
5. Describe the accounting for changes of estimates.	4, 5, 9	6, 7, 8, 9, 10, 11, 12	1, 2, 3, 4, 6
6. Describe the accounting for correction of errors.	6, 7, 8, 10	7, 8, 9, 15, 16, 17, 18, 19, 20, 21	1, 2, 3, 6, 7, 8, 9, 10
7. Identify economic motives for changing accounting policies.			
8. Analyze the effect of errors.		18, 19, 20, 21	6, 7, 8, 9, 10

ASSIGNMENT CHARACTERISTICS TABLE

Item	Description	Level of Difficulty	Time (minutes)
E22-1	Change in policy—long-term contracts.	Moderate	10–15
E22-2	Change in policy—inventory methods.	Moderate	10–15
E22-3	Accounting change.	Difficult	25–30
E22-4	Accounting change.	Difficult	25–30
E22-5	Accounting change.	Difficult	30–35
E22-6	Accounting changes—depreciation.	Difficult	30–35
E22-7	Change in estimate and error; financial statements.	Moderate	25–30
E22-8	Accounting for accounting changes and errors.	Simple	5–10
E22-9	Error and change in estimate—depreciation.	Simple	15–20
E22-10	Depreciation changes.	Moderate	20–25
E22-11	Change in estimate—depreciation.	Simple	10–15
E22-12	Change in estimate—depreciation.	Simple	20–25
E22-13	Change in policy—long-term contracts.	Simple	10–15
E22-14	Various changes in policy—inventory methods.	Moderate	20–25
E22-15	Error correction entries.	Simple	15–20
E22-16	Error analysis and correcting entry.	Simple	10–15
E22-17	Error analysis and correcting entry.	Simple	10–15
E22-18	Error analysis.	Moderate	25–30
E22-19	Error analysis and correcting entries.	Simple	20–25
E22-20	Error analysis.	Moderate	20–25
E22-21	Error analysis.	Moderate	10–15
P22-1	Change in estimate and error correction.	Moderate	30–35
P22-2	Comprehensive accounting change and error analysis problem.	Complex	30–40
P22-3	Error corrections and accounting changes.	Complex	30–40
P22-4	Accounting changes.	Moderate	40–50
P22-5	Change in policy—inventory—periodic.	Moderate	30–35
P22-6	Accounting changes and error analysis.	Moderate	25–30
P22-7	Error corrections.	Moderate	25–30
P22-8	Comprehensive error analysis.	Difficult	30–35
P22-9	Error analysis.	Moderate	20–25
P22-10	Error analysis and correcting entries.	Complex	50–60
CA22-1	Analysis of various accounting changes and errors.	Moderate	25–35
CA22-2	Analysis of various accounting changes and errors.	Moderate	20–30
CA22-3	Analysis of three accounting changes and errors.	Moderate	30–35
CA22-4	Analysis of various accounting changes and errors.	Moderate	20–30
CA22-5	Change in policy, estimate.	Moderate	20–30
CA22-6	Change in estimate, ethics.	Moderate	20–30

ANSWERS TO QUESTIONS

1. The major reasons why companies change accounting policies are:
(1) Desire to show better profit picture.
(2) Desire to increase cash flows through reduction in income taxes.
(3) Requirement by International Accounting Standards Board to change accounting methods.
(4) Desire to follow industry practices.
(5) Desire to show a better measure of the company's income.

2. (a) Change in accounting policy; retrospective application to prior period financial statements.
(b) Correction of an error and therefore prior period adjustment; adjust the beginning balance of retained earnings.
(c) Increase income for litigation settlement.
(d) Change in accounting estimate; currently and prospectively. Part of operating section of income statement.
(e) Reduction of accounts receivable and the allowance for doubtful accounts.
(f) Change in accounting policy; retrospective application to prior period financial statements.

3. The three approaches suggested for reporting changes in accounting policies are:
(a) Currently—the cumulative effect of the change is reported in the current year's income as a special item.
(b) Retrospectively—the cumulative effect of the change is reported as an adjustment to retained earnings. The prior year's statements are changed on a basis consistent with the newly adopted policy.
(c) Prospectively—no adjustment is made for the cumulative effect of the change. Previously reported results remain unchanged. The change shall be accounted for in the period of the change and in subsequent periods if the change affects future periods.

4. The IASB believes that the retrospective approach provides financial statement users the most useful information. Under this approach, the prior statements are changed on a basis consistent with the newly adopted standard; any cumulative effect of the change for prior periods is recorded as an adjustment to the beginning balance of retained earnings of the earliest period reported.

5. The indirect effect of a change in accounting policy reflects any changes in current or future cash flows resulting from a change in accounting policy that is applied retrospectively. An example is the change in payments to a profit-sharing plan that is based on reported net income. Indirect effects are not included in the retrospective application, but instead are reported in the period in which the accounting change occurs (current period).

6. A change in an estimate is simply a change in the way an individual perceives the realizability of an asset or liability. Examples of changes in estimate are: (1) change in the realizability of trade receivables, (2) revisions of estimated lives, (3) changes in estimates of warranty costs, and (4) change in estimate of deferred charges or credits.

7. This is an example of a situation in which it is difficult to differentiate between a change in accounting policy and a change in estimate. In such a situation, the change should be considered a change in estimate, and accordingly, should be handled currently and prospectively. Thus, all costs presently capitalized and viewed as providing doubtful future values should be expensed immediately, and costs currently incurred should also be expensed immediately.

8. (a) Charge to expense—possibly separately disclosed.
(b) Change in estimate—account for currently and prospectively.
(c) Charge to expense—possibly separately disclosed.
(d) Correction of an error and reported as a prior period adjustment—adjust the beginning balance of retained earnings.

(e) Change in accounting policy—retrospective application to all affected prior-period financial statements.
(f) Change in accounting estimate—currently and prospectively.

9. This change is to be handled as a correction of an error. As such, the portion of the change attributable to prior periods ($23,000) should be reported as an adjustment to the beginning balance of retained earnings in the 2010 financial statements. If statements for previous years are presented for comparative purposes, these statements should be restated to correct for the error. The remainder of the inventory value ($29,000) should be reported in the 2010 statements as a reduction of materials cost.

10. Preferability is a difficult concept to apply. The problem is that there are no basic objectives to indicate which is the most preferable method, assuming a selection between two generally accepted practices is possible, such as cost-recovery and percentage-of-completion. If an IASB standard creates a new policy or expresses preference for or rejects a specific accounting policy, a change is considered clearly acceptable. A more appropriate matching of revenues and expenses is often given as the justification for a change in accounting policy.

11. When a company changes to the new policy, the base-year amounts for all subsequent calculations under the new method is the beginning balance in the year the policy is adopted. This assumes that prior years' income is not changed because it would be too impractical to do so.

12. Larger companies that are more politically visible may seek to report low income numbers to avoid the scrutiny of regulators. The larger the company the more likely it is to adopt income-decreasing approaches in selecting accounting methods.

13. Some of the key reasons for changing accounting policies are: (1) political costs, (2) capital structure, (3) bonus payments, and (4) smoothing of earnings.

14. Counterbalancing errors are errors that will be offset or corrected over two periods. Non-counterbalancing errors are errors that are not offset in the next accounting period. An example of a counterbalancing error is the failure to record accrued wages or prepaid expenses. Failure to capitalize equipment and record depreciation is an example of a non-counterbalancing error.

15. A correction of an error in previously issued financial statements should be handled as a prior-period adjustment. Thus, such an error should be reported in the year that it is discovered as an adjustment to the beginning balance of retained earnings. And, if comparative statements are presented, the prior periods affected by the error should be restated. The disclosures need not be repeated in the financial statements of subsequent periods.

As an illustration, assume that credit sales of $40,000 were inadvertently overlooked at the end of 2010. When the error was discovered in a subsequent period, the appropriate entry to record the correction of the error would have been (ignoring income tax effects):

Accounts Receivable	40,000	
Retained Earnings		40,000

16. This change represents a change from an accounting policy that is **not** generally accepted to an accounting policy that is acceptable. As such, this change should be handled as a correction of an error. Thus, in the 2010 statements, the cumulative effect of the change should be reported as an adjustment to the beginning balance of retained earnings. If 2009 statements are presented for comparative purposes, these statements should be restated to correct for the accounting error.

17. Retained earnings is correctly stated at December 31, 2012. Failure to accrue salaries in earlier years is a counterbalancing error that has no effect on 2012 ending retained earnings.

18. December 31, 2011

Machinery	6,000	
Accumulated Depreciation—Machinery		600
Retained Earnings		5,400
(To correct for the error of expensing installation costs on machinery acquired in January, 2010)		
Depreciation Expense [(£36,000 – £3,600) ÷ 20]	1,620	
Accumulated Depreciation—Machinery		1,620
(To record depreciation on machinery for 2011 based on a 20-year useful life)		

19. This error has no effect on net income because both purchases and inventory were understated. The entry to correct for this error, assuming a periodic inventory system, is:

Purchases	130,000	
Accounts Payable		130,000

20. This error increases net income by $2,400 in 2010. Depreciation should have been charged to net income. The entry to correct for this error is as follows:

Depreciation Expense	2,400	
Accumulated Depreciation—Equipment		2,400

21. U.S. GAAP absolutely requires restatement of prior financial statements for all accounting errors while IFRS allows for some exceptions. Under IFRS, the impracticality exception applies to correction of errors.

22. U.S. GAAP has detailed guidance on the accounting and reporting of indirect effects. U.S. GAAP requires that indirect effects do not change prior period amounts.

23. There is a difference between U.S. GAAP and IFRS related to how the investor evaluates the accounting policies of the investee. For example, if the investee uses an inventory method different from the investor's method, the investor must conform the accounting method of the investee to its own method under IFRS. This involves adjusting the investee's net income so it is reported on the same basis as the investor's income.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 22-1

Construction in Process ($120,000 – $80,000)..........	40,000	
Deferred Tax Liability		
[($120,000 – $80,000) X 35%].........................		14,000
Retained Earnings		26,000

BRIEF EXERCISE 22-2

Difference in profit-sharing expense—prior years	
Pre-tax income—percentage-of-completion	$120,000
Pre-tax income—cost-recovery................................	80,000
	$ 40,000
	X 1%
Indirect effect	$ 400

The indirect effect from prior years will be reported as a profit-sharing expense for year 2010.

BRIEF EXERCISE 22-3

Inventory	1,200,000	
Deferred Tax Liability (€1,200,000 X 40%)..........		480,000
Retained Earnings		720,000

BRIEF EXERCISE 22-4

Cost of depreciable assets.......................................	$250,000
Accumulated depreciation...	(90,000)
Carrying value at January 1, 2010............................	160,000
Residual value	(40,000)
Depreciable base	$120,000

Depreciation in 2010 = $120,000 ÷ 8 = $15,000.

Depreciation Expense..	15,000	
Accumulated Depreciation		15,000

BRIEF EXERCISE 22-5

Depreciation Expense	24,000	
Accumulated Depreciation		24,000

$$\left(\frac{£58{,}000^{*} - £10{,}000}{4-2} = £24{,}000\right)$$

*Book value before change

Cost	£74,000
Accumulated depreciation	16,000**
	£58,000

**[(£74,000 – £18,000) ÷ 7] X 2

BRIEF EXERCISE 22-6

Equipment	50,000	
Accumulated Depreciation		20,000
Deferred Tax Liability		9,000
Retained Earnings		21,000

($20,000 = $50,000 X 2/5; $9,000 = $30,000 X 30%)

BRIEF EXERCISE 22-7

CHENG COMPANY
Retained Earnings Statement
For the Year Ended December 31, 2010

Retained earnings, January 1, as previously reported	¥20,000,000
Less: Correction of depreciation error, net of tax	2,400,000*
Retained earnings, January 1, as adjusted	17,600,000
Add: Net income	9,000,000
Less: Dividends	2,500,000
Retained earnings, December 31	¥24,100,000

*¥4,000,000 X (1 – .4)

BRIEF EXERCISE 22-8

	2010	2011
a.	Overstated	Overstated
b.	Overstated	Understated
c.	Understated	Overstated
d.	Overstated	Understated
e.	No effect	Overstated

BRIEF EXERCISE 22-9

1. The change to a three-year remaining life for the purpose of computing depreciation on production equipment is a change in estimate due to a change in conditions.

2. This is an expense classification change arising from a change in the use of the building for a different purpose. Thus, it is not a change in policy, a change in estimate, or an error.

3. The change to expensing preproduction costs (writing the costs off in one year as opposed to several years) is a change in estimate due to a change in conditions.

BRIEF EXERCISE 22-10

1. Both FIFO and average cost are generally accepted accounting policies; thus, this item is a change in accounting policy.

2. This oversight is a mistake that should be corrected. Such a correction is considered a change due to error.

3. Both the cost-recovery method and the percentage-of-completion method are generally accepted policies; thus, such a change is a change in accounting policy.

SOLUTIONS TO EXERCISES

EXERCISE 22-1 (10–15 minutes)

(a) **The net income to be reported in 2010, using the retrospective approach, would be computed as follows:**

Income before income tax		**$700,000**
Income tax (35% X $700,000)........................		**245,000**
Net income		**$455,000**

(b)

Construction in Process....................................	**170,000**	
Deferred Tax Liability ($170,000 X 35%)		**59,500**
Retained Earnings		**110,500***

***($170,000 X 65% = $110,500)**

EXERCISE 22-2 (10–15 minutes)

(a)

Inventory	**11,000***	
Retained Earnings		**11,000**

***($19,000 + $21,000 + $25,000) –**
($16,000 + $18,000 + $20,000)

(b)

Net Income (FIFO)	**2008**	**$19,000**
	2009	**21,000**
	2010	**25,000**

EXERCISE 22-3 (25–30 minutes)

(a)

RAMIREZ CO.
Income Statement
For the Year Ended December 31

Average Cost

	2008	2009	2010
Sales	$4,000	$4,000	$4,000
Cost of goods sold	800	1,000	1,130
Operating expenses	1,000	1,000	1,000
Net income	$2,200	$2,000	$1,870

Income Statement
For the Year Ended December 31

FIFO

	2008	2009	2010
Sales	$4,000	$4,000	$4,000
Cost of goods sold	820	940	1,100
Operating expenses	1,000	1,000	1,000
Net income	$2,180	$2,060	$1,900

(b)

RAMIREZ CO.
Income Statement
For the Year Ended December 31

	2010	2009 As adjusted (Note A)
Sales	$4,000	$4,000
Cost of goods sold	1,100	940
Operating expenses	1,000	1,000
Net income	$1,900	$2,060

EXERCISE 22-3 (Continued)

(c) Note A:

Change in Method of Accounting for Inventory Valuation

On January 1, 2010, Ramirez elected to change its method of valuing its inventory to the FIFO method, whereas in all prior years inventory was valued using the Average Cost method. The new method of accounting for inventory was adopted because it better reflects the current cost of the inventory on the statement of financial position and comparative financial statements of prior years have been adjusted to apply the new method retrospectively. The following financial statement line items for fiscal years 2010 and 2009 were affected by the change in accounting policy.

	2010			2009		
Statement of Financial Position	**Average**	**FIFO**	**Difference**	**Average**	**FIFO**	**Difference**
Inventory	**$ 320**	**$ 390**	**$70**	**$ 200**	**$ 240**	**$40**
Retained Earnings	**6,070**	**6,140**	**70**	**4,200**	**4,240**	**40**
Income Statement						
Cost of Goods Sold	**$1,130**	**$1,100**	**$30**	**$1,000**	**$ 940**	**$60**
Net Income	**1,870**	**1,900**	**30**	**2,000**	**2,060**	**60**
Statement of Cash Flows						
(no effect)						

(d) Retained earnings statements after retrospective application.

	2010	2009
Retained earnings, January 1, as reported		**$2,200**
Less: Adjustment for cumulative effect of applying new accounting method (FIFO)		**20**
Retained earnings, January 1, as adjusted	**$4,240**	**2,180**
Net Income	**1,900**	**2,060**
Retained earnings, December 31	**$6,140**	**$4,240**

EXERCISE 22-4 (25–30 minutes)

		2008
(a)	Retained earnings, January 1, as reported	£160,000
	Cumulative effect of change in accounting policy to average cost	(13,000)*
	Retained earnings, January 1, as adjusted	£147,000

*[£8,000 (2006) + £5,000 (2007)]

		2011
(b)	Retained earnings, January 1, as reported	£590,000
	Cumulative effect of change in accounting policy to average cost	(20,000)*
	Retained earnings, January 1, as adjusted	£570,000

*[£8,000 (2006) + £5,000 (2007) + £10,000 (2008) – £10,000 (2009) + £7,000 (2010)]

		2012
(c)	Retained earnings, January 1, as reported	£780,000
	Cumulative effect of change in accounting policy to average cost	(15,000)*
	Retained earnings, January 1, as adjusted	£765,000

*[£20,000 at 12/31/2010 – £5,000 (2011)]

		2009	2010	2011
(d)	Net Income	£130,000	£293,000	£310,000

EXERCISE 22-5 (30–35 minutes)

(a)

CARLTON COMPANY
Income Statement
For the Year Ended

	2010	2009
Sales	$3,000	$3,000
Cost of goods sold	1,100	940
Operating expenses	1,000	1,000
Income before profit sharing	$ 900	$1,060
Profit sharing expense	48	50
Net income	$ 852	$1,010

Carlton Company should report $50 as the profit sharing expense in 2009, even though the profit sharing expense would be $53 if FIFO had been used in 2009.

(b) The profit sharing expense reflects an indirect effect of the change in accounting policy. Under IFRS, indirect effects from periods before the change are recorded in the year of the change. In this case, profit sharing expense recorded in 2010 is composed of:

$900 X 5% =	$45	(2010 under FIFO)
$ 60 X 5% =	3	(difference in profit sharing for 2009)
	$48	(profit sharing expense for FIFO in 2010)

(c) **Retained Earnings Statement**

	2010
Retained earnings, January 1, as reported	$8,000
Cumulative effect of change to FIFO ($1,007 – $950)	57
Retained earnings, January 1, as adjusted	8,057
Add: Net Income	855*
Deduct: Dividends	2,500
Retained earnings, December 31	$6,412

*The difference in net income for 2010 compared to (a) is due to the $3 indirect effect of profit sharing expense.

EXERCISE 22-6 (30–35 minutes)

(a) Depreciation to date on equipment

Sum-of-the-years'-digits depreciation

2007 (5/15 X $450,000)	$150,000
2008 (4/15 X $450,000)	120,000
2009 (3/15 X $450,000)	90,000
	$360,000

Cost of equipment	$465,000
Depreciation to date	(360,000)
Book value (December 31, 2009)	$105,000

Book value – Residual value = Depreciable cost
$105,000 – $15,000 = $90,000

Depreciation for 2010: $90,000/2 = $45,000

Depreciation Expense	45,000	
Accumulated Depreciation—Equipment		45,000

(b) Depreciation to date on building

$780,000/30 years = $26,000 per year
$26,000 X 3 = $78,000 depreciation to date

Cost of building	$780,000
Depreciation to date	(78,000)
Book value (December 31, 2009)	$702,000

Depreciation for 2010: $702,000/(40 – 3) = $18,973 (rounded)

Depreciation Expense	18,973	
Accumulated Depreciation—Buildings		18,973

EXERCISE 22-7 (25–30 minutes)

Change from sum-of-the-years-digits to straight-line

Cost of depreciable assets	**$90,000**
Depreciation in 2009 ($90,000 X 4/10)	**(36,000)**
Book value at December 31, 2009	**$54,000**

Depreciation for 2010 using straight-line depreciation

Book value at December 31, 2009	**$54,000**
Estimated useful life	**÷ 3 years**
Depreciation for 2010 ($54,000 ÷ 3)	**$18,000**

PANNEBECKER INC.
Retained Earnings Statement
For the Year Ended

	2010	2009
Retained earnings, January 1, unadjusted	$125,000	
Less: Correction of error for inventory overstatement	(20,000)	
Retained earnings, January 1, adjusted	105,000	$ 72,000
Add: Net income	81,000	58,000
Less: Dividends	30,000	25,000
Retained earnings, December 31	$156,000	$105,000

Note to instructor:

1. **2009 Cost of sales increased $20,000; 2010 cost of sales decreased $20,000. As a result, net income for 2009 is overstated $20,000 and net income for 2010 is understated $20,000 as a result of the inventory error.**

2. **2009 expenses remained unchanged.**

3. **2010 expenses decreased $9,000 ($27,000 – $18,000). Net income in 2010 is therefore $81,000 ($52,000 + $20,000 + $9,000).**

4. **Additional disclosures would be as necessitated as indicated in the chapter.**

EXERCISE 22-7 (Continued)

5. Another acceptable presentation for the retained earnings statement for 2010 is:

Retained earnings, January 1, as reported..........	$125,000
Prior period adjustment—inventory error	(20,000)
Retained earnings, January 1, as adjusted	105,000
Add: Net Income	81,000
Less: Dividends...	30,000
Retained earnings, December 31.........................	$156,000

EXERCISE 22-8 (5–10 minutes)

1.	b.	6.	b.
2.	b.	7.	a.
3.	a.	8.	b.
4.	b.	9.	a.
5.	a.		

EXERCISE 22-9 (15–20 minutes)

December 31, 2010		
Retained Earnings (₩44,000,000 X 9/55)......................	7,200,000	
Accumulated Depreciation—Machinery		7,200,000
(To correct for the omission of depreciation expense in 2008)		

Cost of Machine		₩44,000,000
Less: Depreciation prior to 2010		
2007 (₩44,000,000 X 10/55)	₩8,000,000	
2008 (₩44,000,000 X 9/55)	7,200,000	
2009 (₩44,000,000 X 8/55)	6,400,000	21,600,000
Book Value at January 1, 2010		₩22,400,000

Depreciation for 2010: ₩22,400,000 ÷ 7 = ₩3,200,000

Depreciation Expense	3,200,000	
Accumulated Depreciation—Machinery		3,200,000
(To record depreciation expense for 2010)		

EXERCISE 22-10 (20–25 minutes)

(a) Computation of depreciation for 2010:

Cost of building		£1,200,000
Less: Depreciation prior to 2010		
2006 (£1,200,000 – £ 0) X .05*	£60,000	
2007 (£1,200,000 – £ 60,000) X .05	57,000	
2008 (£1,200,000 – £117,000) X .05	54,150	
2009 (£1,200,000 – £171,150) X .05	51,443	222,593
Book value, January 1, 2010		£ 977,407

*(1 ÷ 40) X 2

Depreciation expense for 2010: £25,761 [(£977,407 – £50,000) ÷ 36]

Depreciation Expense	25,761	
Accumulated Depreciation—Building		25,761

(b) Computation of 2010 depreciation expense on the equipment:

Cost of equipment	£130,000
Accumulated depreciation [(£130,000 – £10,000) ÷ 12] X 4 years	(40,000)
Book value, January 1, 2010	£ 90,000

2010 Depreciation expense: $\frac{£90,000 - £5,000}{(9-4)} = \frac{£85,000}{5} = \underline{\underline{£17,000}}$

EXERCISE 22-11 (10–15 minutes)

(a) No entry necessary. Changes in estimates are treated prospectively.

(b)

Depreciation Expense	27,000*	
Accumulated Depreciation—Equipment		27,000

*Original cost	$710,000
Accumulated depreciation [($710,000 – $10,000) ÷ 10] X 7	(490,000)
Book value (1/1/11)	220,000
Estimated residual value	(4,000)
Remaining depreciable basis	216,000
Remaining useful life (15 years – 7 years)	÷ 8
Depreciation expense—2010	$ 27,000

EXERCISE 22-12 (20–25 minutes)

(a)

Cost of plant assets		$2,400,000
Less: Depreciation prior to 2010		
2007 ($2,400,000 X .25)	$600,000	
2008 ($1,800,000 X .25)	450,000	
2009 ($1,350,000 X .25)	337,500	1,387,500
Book value at January 1, 2010		$1,012,500

2010 Depreciation: ($1,012,500 – $100,000) ÷ 5 = $182,500

Depreciation Expense	182,500	
Accumulated Depreciation—Plant Assets		182,500

(b)

	2010	2009
Income before depreciation expense	$300,000	$370,000
Depreciation expense	182,500	337,500
Net income	$117,500	$ 32,500

EXERCISE 22-13 (10–15 minutes)

(a) The net income to be reported in 2010, using the retrospective approach, would be computed as follows:

Income before income tax	$900,000
Income tax (40% X $900,000)	360,000
Net income	$540,000

(b)

Construction in Process	250,000	
Deferred Tax Liability (40% X $250,000)		100,000
Retained Earnings		150,000*

*($250,000 X 60% = $150,000)

EXERCISE 22-14 (20–25 minutes)

(a)	Retained Earnings	10,000	
	Inventory		10,000*

*2008	€ 3,000	(€26,000 – €23,000)
2009	5,000	(€30,000 – €25,000)
2010	2,000	(€29,000 – €27,000)
	€10,000	

	2011	2010	2009	2008
Net income	€30,000	€27,000	€25,000	€23,000

(b)	Inventory	10,000	
	Retained Earnings		10,000*

*2008	€ 3,000	(€26,000 – €23,000)
2009	5,000	(€30,000 – €25,000)
2010	2,000	(€29,000 – €27,000)
	€10,000	

	2011	2010	2009	2008
Net income	€34,000	€29,000	€30,000	€26,000

EXERCISE 22-15 (15–20 minutes)

1.	Accumulated Depreciation—Machinery	30,600	
	Depreciation Expense		10,200
	Retained Earnings		20,400

	2008–2009	2010
Depreciation taken	$204,000*	$102,000
Depreciation (correct)	(183,600)	(91,800)
	$ 20,400	$ 10,200

*$510,000 X 1/5 X 2

2.	Retained Earnings	45,000	
	Sales Salaries Expense		45,000

3. No entry necessary.

EXERCISE 22-15 (Continued)

4.	Amortization Expense—Copyright	2,500	
	Retained Earnings	5,000	
	Copyright		7,500
	($50,000 ÷ 20 = $2,500; $2,500 X 2 = $5,000)		
5.	Loss on Write-down of Inventories (or Cost of Goods Sold)	87,000	
	Retained Earnings		87,000

EXERCISE 22-16 (10–15 minutes)

1.	Wages Expense	3,400	
	Wages Payable		3,400
2.	Vacation Wages Expense	31,100	
	Vacation Wages Payable		31,100
3.	Prepaid Insurance ($3,300 X 10/12)	2,750	
	Insurance Expense		2,750
4.	Sales Revenue [$1,908,000 ÷ (1.00 + .06)] X 6%	108,000	
	Sales Tax Payable		108,000
	Sales Tax Payable	103,400	
	Sales Tax Expense		103,400

EXERCISE 22-17 (10–15 minutes)

Retained Earnings	33,700	
Inventory		14,200
Accumulated Depreciation—Equipment ($38,500 – $19,000)		19,500

Computations:

	Effect on retained earnings over (under) statement
Overstatement of 2011 ending inventory	$14,200
Overstatement of 2010 depreciation	(19,000)
Understatement of 2011 depreciation	38,500
Total effect of errors on retained earnings	$33,700

Note: The understatement of inventory in 2010 was a self-correcting error at the end of 2011.

EXERCISE 22-18 (25–30 minutes)

(a) Effect of errors on 2010 net income: £21,700 overstatement

Computations:

	Effect on 2010 net income over (under) statement
Understatement of 2009 ending inventory	£ 9,600
Overstatement of 2010 ending inventory	7,100
Expensing of insurance premium in 2009 (£60,000 ÷ 3)	20,000
Failure to record sale of fully depreciated machine in 2010	(15,000)
Total effect of errors on net income (overstated)	£21,700

(b) Effect of errors on working capital: £27,900 understatement

Computations:

	Effect on working capital over (under) statement
Overstatement of 2010 ending inventory	£ 7,100
Expensing of insurance premium in 2009 (prepaid insurance)	(20,000)
Sale of fully depreciated machine unrecorded (cash)	(15,000)
Total effect on working capital (understated)	£(27,900)

(c) Effect of errors on retained earnings: £25,600 understatement

Computations:

	Effect on retained earnings over (under) statement
Overstatement of 2010 ending inventory	£ 7,100
Understatement of depreciation expense in 2009	2,300
Expensing of insurance premium in 2009	(20,000)
Failure to record sale of fully depreciated machine in 2010	(15,000)
Total effect on retained earnings (understated)	£(25,600)

EXERCISE 22-19 (20–25 minutes)

(a)	1.	Supplies Expense ($2,500 – $1,100)	1,400	
		Supplies on Hand		1,400
	2.	Salary and Wages Expense ($4,400 – $1,500)	2,900	
		Accrued Salaries and Wages		2,900
	3.	Interest Revenue ($5,100 – $4,350)	750	
		Interest Receivable		750
	4.	Insurance Expense ($90,000 – $65,000)	25,000	
		Prepaid Insurance		25,000
	5.	Rental Income ($24,000 ÷ 2)	12,000	
		Unearned Rent		12,000
	6.	Depreciation Expense ($50,000 – $5,000)	45,000	
		Accumulated Depreciation		45,000
	7.	Retained Earnings	7,200	
		Accumulated Depreciation		7,200
(b)	1.	Retained Earnings	1,400	
		Supplies on Hand		1,400
	2.	Retained Earnings	2,900	
		Accrued Salaries and Wages		2,900
	3.	Retained Earnings	750	
		Interest Receivable		750
	4.	Retained Earnings	25,000	
		Prepaid Insurance		25,000
	5.	Retained Earnings	12,000	
		Unearned Rent		12,000
	6.	Retained Earnings	45,000	
		Accumulated Depreciation		45,000
	7.	Same as in (a).		

EXERCISE 22-20 (20–25 minutes)

	2010	2011
Income before tax	$101,000	$77,400
Corrections:		
Sales erroneously included in 2010 income	(38,200)	38,200
Understatement of 2010 ending inventory	8,640	(8,640)
Adjustment to bond interest expense*	(1,800)	(1,926)
Repairs erroneously charged to the Equipment account	(8,000)	(9,400)
Depreciation recorded on improperly capitalized repairs (10%)***	800	1,740
Corrected income before tax	$ 62,440	$97,374

*Bond interest expense for 2010 and 2011 was computed as follows:

	Book Value of Bonds	Stated Interest	Effective Interest
2010	$240,000	$15,000	$16,800**
2011	241,800	15,000	16,926

**$240,000 X 7%

Difference between effective interest at 7% and stated interest (6%):

2010:	$1,800
2011:	1,926

***Erroneous depreciation taken in 2011:

on 2010 addition ($8,000 ÷ 10)	$ 800
on 2011 addition ($9,400 ÷ 10)	940
Total excess depreciation 2011	$1,740

EXERCISE 22-21 (10–15 minutes)

Item	2010 Over-statement	2010 Under-statement	2010 No Effect	2011 Over-statement	2011 Under-statement	2011 No Effect
(1)		X		X		
(2)		X		X		
(3)			X			X
(4)	X				X	
(5)			X	X		

TIME AND PURPOSE OF PROBLEMS

Problem 22-1 (Time 30–35 minutes)
Purpose—to provide a problem that requires the student to: (1) account for a change in estimate, (2) record a correction of an error, and (3) account for a change in accounting policy. The student is also required to compute corrected/adjusted net income amounts.

Problem 22-2 (Time 30–40 minutes)
Purpose—to develop an understanding of the way in which accounting changes and error corrections are handled in accounting records. The problem presents descriptions of various situations for which the student is required to indicate the correct accounting treatment and to prepare comparative income statements for a four-year period.

Problem 22-3 (Time 30–40 minutes)
Purpose—to provide a problem that requires the student to: (1) prepare correcting entries for two years' unrecorded sales commissions, (2) three years' inventory errors, and (3) prepare entries for two different accounting changes.

Problem 22-4 (Time 40–50 minutes)
Purpose—to allow the student to see the impact of accounting changes on income and to examine an ethical situation related to the motivation for change.

Problem 22-5 (Time 30–35 minutes)
Purpose—to develop an understanding of the impact which a change in the method of inventory pricing (from FIFO to average cost) has on the financial statements during a five-year period. The student is required to prepare a comparative statement of income and retained earnings for the five years assuming the change in inventory pricing with an indication of the effects on net income and earnings per share for the years involved.

Problem 22-6 (Time 25–30 minutes)
Purpose—to develop an understanding of the journal entries and the reporting which are necessitated by an accounting change or correction of an error. The student is required to prepare the entries to reflect such changes or errors and the comparative income statements and retained earnings statements for a two-year period.

Problem 22-7 (Time 25–30 minutes)
Purpose—to provide a problem that requires the student to analyze ten transactions and to prepare adjusting or correcting entries for these transactions.

Problem 22-8 (Time 30–35 minutes)
Purpose—to help a student understand the effect of errors on income and retained earnings. The student must analyze the effects of errors on the current year's net income and on the next year's ending retained earnings balance.

Problem 22-9 (Time 20–25 minutes)
Purpose—to develop an understanding of the effect that errors have on the financial statements. The student is required to prepare a schedule portraying the corrected net income for the years involved with this error analysis.

Problem 22-10 (Time 50–60 minutes)
Purpose—to develop an understanding of the correcting entries and income statement adjustments that are required for changes in accounting policies and accounting errors. This comprehensive problem involves many different concepts such as consignment sales, bonus computations, warranty costs, and bank funding reserves. The student is required to prepare the necessary journal entries to correct the accounting records and a schedule showing the revised income before taxes for each of the three years involved.

SOLUTIONS TO PROBLEMS

PROBLEM 22-1

(a) 1.

Cost of equipment	$85,000	
Less: Residual value	5,000	
Depreciable cost	$80,000	
Depreciation to 2010		
2007 ($80,000/10)	$ 8,000	
2008 ($80,000/10)	8,000	
2009 ($80,000/10)	8,000	
	$24,000	
Depreciation in 2010		
Cost of equipment	$85,000	
Less: Depreciation to 2010	24,000	
Book value (January 1, 2010)	61,000	
Less: Residual value	3,000	
Depreciable cost	$58,000	

Depreciation in 2010
$58,000/4 = $14,500

Depreciation Expense	14,500	
Accumulated Depreciation—Equipment		14,500

2.

Cost of Building	$300,000	
Less: Depreciation to 2010		
2008	60,000	
2009	48,000	
Book value (January 1, 2010)	$192,000	
Less: Residual value	30,000	
Depreciable cost	$162,000	

Depreciation in 2010
($162,000/8) = $20,250

Depreciation Expense	20,250	
Accumulated Depreciation—Building		20,250

3.	Depreciation Expense ($120,000 – $16,000) ÷ 8	13,000	
	Accumulated Depreciation—Machine		13,000
	Accumulated Depreciation—Machine	3,000	
	Retained Earnings		3,000

Depreciation recorded in 2008:

$(\$120,000 \div 8) \text{ X } \frac{1}{2} = \$7,500$

Depreciation that should be recorded in 2008:

$([\$120,000 - \$16,000] \div 8) \text{ X } \frac{1}{2} = 6,500$

Depreciation recorded in 2009:

($120,000 ÷ 8) = $15,000

Depreciation that should be recorded in 2009:

($120,000 – $16,000) ÷ 8 = $13,000

	Depreciation taken	Depreciation that should be taken	Differences
2008	$ 7,500	$ 6,500	$1,000
2009	15,000	13,000	2,000
	$22,500	$19,500	$3,000

(b)

HOLTZMAN COMPANY
Comparative Income Statements
For the Years 2010 and 2009

	2010	2009
Income before depreciation expense	$300,000	$310,000
Depreciation expense*	47,750	69,000
Net income	$252,250	$241,000

*Depreciation Expense	2010	2009
Equipment	$14,500	$ 8,000
Building	20,250	48,000
Machine	13,000	13,000
	$47,750	$69,000

PROBLEM 22-2

(a) 1. Bad debt expense for 2008 should not have been reduced by €10,000. A change in the experience rate is considered a change in estimate, which should be handled prospectively.

2. A change from Average Cost to FIFO is considered a change in accounting policy, which must be handled retrospectively.

3. (a) The inventory error in 2010 is a prior period adjustment and the 2010 and 2011 financial statements should be restated.

(b) The lawsuit settlement is correctly treated.

(b)

BOTTICELLI INC.
Comparative Income Statements
For the Years 2008 through 2011

	2008	2009	2010	2011
Net income (see below)	€145,000	€165,000	€201,000	€274,000

	2008	2009	2010	2011
Net income (unadjusted)	€140,000	€160,000	€205,000	€276,000
1. Bad debt expense adjustment	(10,000)			
2. Inventory adjustment (FIFO)	15,000	5,000	10,000	(16,000)
3. Inventory overstatement			(14,000)	14,000
Net income (adjusted)	€145,000	€165,000*	€201,000	€274,000

PROBLEM 22-3

1. Retained Earnings	3,500	
Sales Commissions Payable		2,500
Sales Commissions Expense		1,000
2. Cost of Goods Sold ($19,000 + $6,700)	25,700	
Retained Earnings		19,000
Inventory		6,700

	Income Overstated (Understated)		
	2008	2009	2010
Beginning inventory		$ 16,000	$19,000
Ending inventory	$(16,000)	(19,000)	6,700
	$(16,000)	$ (3,000)	$25,700

3. Accumulated Depreciation—Equipment	4,800	
Depreciation Expense		4,800*

*Equipment cost	$100,000
Depreciation before 2010	(36,000)
Book value	$ 64,000
Depreciation to be taken ($64,000/8)	$ 8,000
Depreciation recorded	(12,800)
Difference	$ (4,800)

4. Construction in Process	45,000	
Deferred Tax Liability		18,000*
Retained Earnings		27,000

*($150,000 – $105,000) X 40%

PROBLEM 22-4

(a)

ASTON CORPORATION
Projected Income Statement
For the Year Ended December 31, 2010

Sales		£29,000,000
Cost of goods sold	£14,000,000	
Depreciation expense	1,600,000[a]	
Operating expenses	6,400,000	22,000,000
Income before income taxes		£ 7,000,000
Unrealized holding gain		1,000,000[b]
Income before taxes and bonus		£ 8,000,000
President's bonus		1,000,000
Income before income taxes		£ 7,000,000
Income taxes		
Current	£ 3,000,000	
Deferred	500,000[c]	3,500,000
Net income		£ 3,500,000

Conditions met:

1. Net income before taxes and bonus > £7,000,000.
2. Payable for income taxes does not exceed £3,000,000.

[a]Depreciation for the current year includes £600,000 for the old equipment and £2,000,000 for the robotic equipment. If the robotic equipment is changed to straight-line, its depreciation is only £1,000,000 and the total is £1,600,000.

[b]By urging the Board of Directors to change the classification of Investments A and D to trading investments, income is increased by a £1,000,000 recognition of a holding gain.

[c]The unrealized holding gain is not currently taxable until the investments are sold.

(b) Students' answers will vary.

There is nothing unethical about changing the first-year election of depreciation back to the straight-line method provided that it meets with the approval of appropriate corporate decision makers. Considering the

immediate needs for cash of £1,000,000 for the president's bonus and £3,000,000 for income taxes, there may be a need to sell some of the invesments. Therefore, the transfer of £3,000,000 of held-for-collection investments to trading investments may also be appropriate.

It is naive to believe that corporate officers do no planning for year-end (or interim) financial statements. The slippery slope arises with manipulation of financial statements. The investment reclassification for the selected investments clearly manipulates the income to the benefit of the president. While legal and within IFRS guidelines, the ethics of this situation are borderline. Any auditor would automatically bring this transaction to the attention of the board of directors.

Some stakeholders and their interests are:

Stakeholder	Interests
President	Personal gain of £1,000,000 bonus.
CFO	Placed in ethical dilemma between the interests of the president and the corporation.
Board of Directors	May be subject to the manipulations of the CEO for his personal gain.
Shareholders	Increased income from higher (paper) income may increase demand for dividends. Also, paying a bonus may decrease cash available for dividends.
Employees	President takes over 25% of net income for himself. This could have been used to start a pension plan for all of the employees.
Creditors	The increased income represents a 17% inflation of the true net income of the corporation. This may lead to a missrepresentation of creditworthiness.

PROBLEM 22-5

UTRILLO INSTRUMENT COMPANY
Statement of Income and Retained Earnings
For the Years Ended May 31
(Amounts in millions)

	2006	2007	2008	2009	2010
Sales—net	¥13,964	¥15,506	¥16,673	¥18,221	¥18,898
Cost of goods sold					
Beginning inventory	1,010	1,124	1,101	1,270	1,500
Purchases	13,000	13,900	15,000	15,900	17,100
Ending inventory	(1,124)	(1,101)	(1,270)	(1,500)	(1,720)
Total	12,886	13,923	14,831	15,670	16,880
Gross profit	1,078	1,583	1,842	2,551	2,018
Administrative expenses	700	763	832	907	989
Income before taxes	378	820	1,010	1,644	1,029
Income taxes (50%)	189	410	505	822	515
Net income	189	410	505	822	514
Retained earnings—beginning:					
As originally reported	1,206	1,388	1,759	2,237	3,005
Adjustment (See note* and schedule)	5	12	51	78	132
As restated	1,211	1,400	1,810	2,315	3,137
Retained earnings—ending	¥ 1,400	¥ 1,810	¥ 2,315	¥ 3,137	¥ 3,651
Earnings per share (100 shares)	¥ 1.89	¥ 4.10	¥ 5.05	¥ 8.22	¥ 5.14

***Note to instructor*:**

The retained earnings balances are usually reported in the above manner. If desired, only the restated balances might be reported. The adjustments are simply the cumulative difference in income between the two inventory methods, net of tax. For example, the ¥5 in 2006 reflects the difference in ending inventories in 2005 (¥1,000 – ¥1,010) times the tax rate 50%. In 2007, the difference in income of ¥7 between the two methods in 2006 is added to the ¥5 to arrive at a ¥12 adjustment to the beginning balance of retained earnings in 2007.

PROBLEM 22-5 (Continued)

In 2010, the Company changed its method of pricing inventory from the first-in, first-out (FIFO) to the average cost method in order to more fairly present the financial operations of the company. The financial statements for prior years have been restated to retrospectively reflect this change, resulting in the following effects on net income and related per share amounts:

	Increase in				
	2006	**2007**	**2008**	**2009**	**2010**
Net income	¥ 7	¥ 39	¥ 27	¥ 54	¥ 44
Earnings per share	¥0.07	¥0.39	¥0.27	¥0.54	¥0.44

Schedule of Income Reconciliation and Retained Earnings Adjustments 2006–2010

	2005	2006	2007	2008	2009	2010
Beginning Inventory FIFO		¥1,000	¥1,100.00	¥1,000.00	¥1,115.00	¥1,237.00
Average Cost		1,010	1,124.00	1,101.00	1,270.00	1,500.00
Difference		(10)	(24.00)	(101.00)	(155.00)	(263.00)
Tax Effect (50%)		5	12.00	50.50†	77.50†	131.50†
Effect on Income*		¥ (5)	¥ (12.00)	¥ (50.50)†	¥ (77.50)†	¥ (131.50)
Ending Inventory FIFO	¥1,000	¥1,100	¥1,000.00	¥1,115.00	¥1,237.00	¥1,369.00
Average Cost	1,010	1,124	1,101.00	1,270.00	1,500.00	1,720.00
Difference	(10)	(24)	(101.00)	(155.00)	(263.00)	(351.00)
Tax Effect (50%)	5	12	50.50†	77.50†	131.50†	175.50
Effect on Income**	¥ 5	¥ 12	¥ 50.50†	¥ 77.50†	¥ 131.50†	¥ 175.50
Net Effect on Income	¥ 5	¥ 7	¥ 38.50†	¥ 27.00	¥ 54.00	¥ 44.00†
Cumulative Effect on Beginning Retained Earnings		¥ 12	¥ 50.50†	¥ 77.50†	¥ 131.50	¥ 175.50

***Larger (smaller) beginning inventory has negative (positive) effect on net income.**

****Larger (smaller) ending inventory has positive (negative) effect on net income.**

† The tax effects are rounded up to the next whole dollar in the problem. Therefore, the net effects on income and retained earnings are effectively rounded down to the next whole dollar.

PROBLEM 22-6

(a)	1.	Depreciation Expense	94,500	
		Accumulated Depreciation—Asset A		94,500

Computations:

Cost of Asset A	$540,000
Less: Depreciation prior to 2010	162,000*
Book value, January 1, 2010	$378,000

*($540,000 ÷ 10) X 3

Depreciation for 2010: $378,000 X 7/28** = $94,500

**[7(7 + 1)] ÷ 2 = 28

2.	Depreciation Expense	25,800	
	Accumulated Depreciation—Asset B		25,800

Computations:

Original cost	$180,000
Accumulated depreciation (1/1/10) $12,000 ($180,000 ÷ 15) X 4	48,000
Book value (1/1/10)	132,000
Estimated residual value	(3,000)
Remaining depreciable base	129,000
Remaining useful life (9 years—4 years taken)	÷ 5
Depreciation expense—2010	$ 25,800

3.	Asset C	160,000	
	Accumulated Depreciation—Asset C (4 X $16,000)		64,000
	Retained Earnings		96,000
	Depreciation Expense	16,000	
	Accumulated Depreciation—Asset C		16,000

(b)

MADRASA INC.
Comparative Retained Earnings Statements
For the Years Ended

	2010	2009
Retained earnings, January 1, as previously reported		$200,000
Add: Error in recording Asset C		112,000*
Retained earnings, January 1, as adjusted	$666,000	312,000
Add: Net income	208,700**	354,000***
Retained earnings, December 31	$874,700	$666,000

*Amount expensed incorrectly in 2006		$160,000
Depreciation to be taken to January 1, 2009 ($16,000 X 3)..		(48,000)
Prior period adjustment for income		$112,000

**Income before depreciation expense (2010)		$400,000
Depreciation for 2010		
Asset A	$94,500	
Asset B	25,800	
Asset C	16,000	
Other	55,000	(191,300)
Income after depreciation expense		$208,700

***Net income as reported..	$370,000
Depreciation—Asset C..	(16,000)
Net income as adjusted	$354,000

PROBLEM 22-7

(1)

Depreciation Expense	**3,200**	
Accumulated Depreciation—Delivery Vehicles		**3,200**

(2)

Income Summary	**19,000**	
Retained Earnings		**19,000**

(3)

Cash	**5,600**	
Accounts Receivable		**5,600**

(4)

Accumulated Depreciation—Equipment	**25,000**	
Equipment		**21,300**
Gain on Sale of Equipment		**3,700**

(5)

Estimated Litigation Loss	**125,000**	
Estimated Litigation Liability		**125,000**

(6)

Unrealized Holding Gain or Loss—Income	**2,000**	
Securities Fair Value Adjustment (Trading)		**2,000**

(7)

Accrued Salaries Payable ($16,000 – $12,200)	**3,800**	
Salaries Expense		**3,800**

(8)

Depreciation Expense	**5,000**	
Equipment	**40,000**	
Repairs Expense		**40,000**
Accumulated Depreciation—Equipment		**5,000**

(9)

Insurance Expense ($12,000 ÷ 3)	**4,000**	
Prepaid Insurance	**6,000**	
Retained Earnings		**10,000**

(10)

Amortization Expense ($50,000 ÷ 10)	**5,000**	
Retained Earnings..	**5,000**	
Trademark		**10,000**

PROBLEM 22-8

	Net Income for 2009		Retained Earnings 12/31/10	
Item	**Understated**	**Overstated**	**Understated**	**Overstated**
1.	$14,100	0	0	0
2.	$ 3,500	0	$ 2,500	0
3.	0	$22,000	0	$11,000
4.	$28,000	0	$28,000	0
5.	0	$24,000	0	$12,000
6.	$18,200	0	0	0

Although explanations were not required in answering the question, they are included below for your interest.

Explanations:

1. **The net income would be understated in 2009 because interest income is understated. The net income would be overstated in 2010 because interest income is overstated. The errors, however, would counter-balance (wash) so that the statement of financial position (Retained Earnings) would be correct at the end of 2010.**

2. **The depreciation expense in 2009 should be $500 for this machine. Since the machine was bought on July 1, 2009, only one-half of a year's depreciation should be taken in 2009 ($4,000/4 X 1/2 = $500). The company expensed $4,000 instead of $500 so net income is understated by $3,500 in 2010. An additional $1,000 of depreciation expense should have been taken in 2010. At the end of 2010, retained earnings would be understated by $2,500 ($3,500 – $1,000).**

3. **IFRS requires that all research costs should be expensed when incurred. Net income in 2009 is overstated $22,000 ($33,000 research costs capitalized less $11,000 amortized). By the end of 2010, only $11,000 of the research costs would remain as an asset. Therefore, retained earnings would be overstated by $11,000 ($33,000 research costs – $22,000 amortized).**

4. **The security deposit should be a long-term asset, called refundable deposits. The $8,000 of the last month's rent is also an asset, called prepaid rent. The net income of 2009 is understated by $28,000 ($20,000 + $8,000) because these amounts were expensed. Retained earnings will continue to be understated by $28,000 until the last year of the lease. The security deposit will then be refunded, and the last month's rent should be expensed.**

5. **$12,000 or one-third of $36,000 should be reported as income each year. In 2009, $36,000 was reported as income when only $12,000 should have been reported. Because $24,000 too much was reported, the net income of 2009 is overstated. At the end of 2010, $24,000 should have been reported as income, so retained earnings is still overstated by $12,000 ($36,000 – $24,000).**

6. **The ending inventory would be understated since the merchandise was omitted. Because ending inventory and net income have a direct relationship, net income in 2009 would be understated. The ending inventory of 2009 becomes the beginning inventory of 2010. If beginning inventory of 2010 is understated, then net income of 2010 is overstated (inverse relationship). The omission in inventory over the two-year period will counterbalance, and retained earnings at the end of 2010 will be correct.**

PROBLEM 22-9

	2009	2010
Net income, as reported	€29,000	€37,000
Rent received in 2009, earned in 2010	(1,000)	1,000
Wages not accrued, 12/31/08	1,100	
Wages not accrued, 12/31/09	(1,200)	1,200
Wages not accrued, 12/31/10		(940)
Inventory of supplies, 12/31/08	(1,300)	
Inventory of supplies, 12/31/09	940	(940)
Inventory of supplies, 12/31/10		1,420
Corrected net income	€27,540	€38,740

PROBLEM 22-10

(a)

ROBERTS COMPANY
Schedule of Revised Net Income
For the Years Ended March 31, 2009, 2010, and 2011

	COMPUTATIONS			SUMMARY Increases (Decreases) in Income		
	2009	2010	2011	2009	2010	2011
1. Net income as reported				$71,600	$111,400	$103,580
2. Elimination of profit on consignments:						
Billed	$ 6,500		$ 5,590			
at 125% of cost	÷ 125%		÷ 125%			
Cost	5,200		4,472			
Profit error	$ 1,300	$ 1,300	$ 1,118	(1,300)	1,300	(1,118)
3. To correct C.O.D. sale					6,100	(6,100)
4. Adjustment of warranty expense:						
Sales per books	$940,000	$1,010,000	$1,795,000			
Correction for consignments	(6,500)	6,500	(5,590)			
Correction for C.O.D. sale		6,100	(6,100)			
Corrected sales	$933,500	$1,022,600	$1,783,310			
Normal warranty expense, one-half of 1%	$ 4,668	$ 5,113	$ 8,917			
Less costs charged to expense	760	1,670	3,850			
Additional expense	$ 3,908	$ 3,443	$ 5,067	(3,908)	(3,443)	(5,067)
5. Bad debt adjustments:						
Normal bad debt expense, one-quarter of 1% of sales	$ 2,334	$ 2,557	$ 4,458			
Less previous write-offs	750	1,320	3,850			
Additional expense	$ 1,584	$ 1,237	$ 608	(1,584)	(1,237)	(608)
6. Adjustment for contract financing				3,000	3,900	5,100
7. Adjustment for commissions				(1,400)	500*	(220)**
				66,408	118,520	95,567
8. Adjustment for bonus, 1% of income before taxes and bonus				(664)	(1,185)	(956)
Income before income taxes				$65,744	$117,335	$ 94,611

*$1,400 – $900
**$900 – $1,120

PROBLEM 22-10 (Continued)

(b)

ROBERTS COMPANY
Journal Entries
March 31, 2011

Sales	5,590	
Merchandise on Consignment	4,472	
Cost of Goods Sold		4,472
Accounts Receivable		5,590
(To adjust for consignments treated as sales, 3/31/11)		
Sales	6,100	
Retained Earnings		6,100
(To adjust for C.O.D. sales not recorded, 3/31/10)		
Warranty Expense	5,067	
Retained Earnings ($3,908 + $3,443)	7,351	
Estimated Liability Under Warranties		12,418
(To set up allowance for warranty expense)		
Retained Earnings ($664 + $1,185)	1,849	
Manager's Bonus Expense	956	
Accrued Bonus Payable		2,805
(To set up accrued bonus payable to manager)		
Retained Earnings ($1,584 + $1,237)	2,821	
Bad Debt Expense	608	
Allowance for Doubtful Accounts		3,429
(To set up allowance for uncollectible accounts)		
Dealers' Fund Reserve (held by bank)	12,000	
Finance Expense		5,100
Retained Earnings ($3,000 + $3,900)		6,900
(To record finance charge reserve held by bank)		

PROBLEM 22-10 (Continued)

Commissions Expense	220	
Retained Earnings ($1,400 – $500)..................................	900	
Accrued Commissions Payable..............................		1,120
(To adjust for accrued commissions)		

TIME AND PURPOSE OF CONCEPTS FOR ANALYSIS

CA 22-1 (Time 25–35 minutes)
Purpose—to provide the student with some familiarity with the applications of IFRS related to accounting changes. This case describes several proposed accounting changes with which the student is required to identify whether the change involves an accounting policy, accounting estimate, or correction of an error, plus the necessary reporting requirements for each proposal.

CA 22-2 (Time 20–30 minutes)
Purpose—to provide the student with an understanding of the application and reporting requirements of **IFRS.** This case describes many different accounting changes with which the student is required to identify the type of change involved and to indicate which changes necessitate the restatement of prior years' financial statements when presented in comparative form with the current year's statement.

CA 22-3 (Time 30–35 minutes)
Purpose—to provide the student with an understanding of **IFRS** and its respective applications. This case describes three independent situations with which the student is required to identify the type of accounting change involved, the reporting which is necessitated under current IFRS, and the effects of each change on the financial statements.

CA 22-4 (Time 20–30 minutes)
Purpose—to provide the student with an understanding of how changes in accounting can be reflected in the accounting records to facilitate analysis and understanding of financial statements. This case involves several situations with which the student is required to indicate the appropriate accounting treatment that each should be given.

CA 22-5 (Time 20–30 minutes)
Purpose—to provide the student with an opportunity to explain how to account for various accounting change situations. Explanations for a change in estimate, and change in policy are communicated in a written letter.

CA 22-6 (Time 20–30 minutes)
Purpose—to provide the student with an opportunity to explain the ethical issues related to changes in estimates.

SOLUTIONS TO CONCEPTS FOR ANALYSIS

CA 22-1

(a) 1. **Uncollectible Accounts Receivable.** This is a change in accounting estimate. Restatement of prior periods is not appropriate.

2. **Depreciation.**

   a. This is a change in accounting estimate. Restatement of opening retained earnings is not appropriate.

   b. This is a new method for a new class of assets. No change is involved.

3. **Mathematical Error.** This is a correction of an error and prior period adjustment treatment would be in order.

4. **Preproduction Costs—Furniture Division.** This should probably be construed as an inseparability situation in that the change in accounting estimate (period benefited by deferred costs) has been affected by a change in accounting policy (amortization on a per-unit basis). Consequently, it is treated as a change in accounting estimate. Restatement of opening retained earnings is not appropriate.

5. **FIFO to Average-Cost Change.** This is a change in accounting policy. Restatement of December 31, 2009 retained earnings is not appropriate, given that the effect on net income in prior periods cannot be determined. Note that a FIFO to Average Cost change does qualify for restatement of opening retained earnings in most cases.

6. **Percentage-of-Completion.** This is a change in accounting policy. Retained earnings should be adjusted.

(b) The adjustment to the December 31, 2009 retained earnings balance would be computed as follows:

Item 3	$ (235,000)
Item 6	1,075,000
Increase in 12/31/09 Retained Earnings	$ 840,000

CA 22-2

Item Change	Type of Change	Should Prior Years' Statements Be Retrospectively Applied or Restated?
1.	A change in accounting policy.	Yes
2.	A change in an accounting estimate.	No
3.	An accounting change involving both a change in accounting policy and a change in accounting estimate. Handle as a change in estimate.	No
4.	Not an accounting change but rather a change in classification.	No
5.	An error correction not involving a change in accounting policy.	Yes
6.	Not a change in accounting policy. Simply, a change in tax accounting.	No
7.	A change in accounting policy.	Yes

CA 22-3

Situation 1.

(a) A change from an accounting policy not generally accepted to one generally accepted is a correction of an error.

(b) When comparative statements are presented, net income, components of net income, retained earnings, and any other affected balances for all periods presented should be restated to correct for the error. When single period statements are presented, the required adjustments should be reported in the opening balance of retained earnings. A description of the change and its effect on net income, and the related per share amounts should be disclosed in the period of the change. Financial statements of subsequent periods need not repeat the disclosures.

(c) The beginning balance of retained earnings in the statement of financial position is restated. The income statement for the current year should report the correct approach for revenue recognition. If prior years' financial statements are presented, they should be restated directly.

Situation 2.

(a) The change in method of inventory pricing represents a change in accounting policy, as defined by IFRS.

(b) Changes in accounting policy are accounted for through retrospective application. Under this approach, the cumulative effect of the new method on the financial statements at the beginning of the period is computed (and recorded in retained earnings at the beginning of the period). Prior statements are changed to be reported on a basis consistent with the new standard.

(c) As a result of the change to weighted-average costing, the current year statement of financial position will reflect weighted-average costing (at relatively higher prices in times of rising prices). Cost of goods sold will also be different (higher), resulting in lower income.

CA 22-3 (Continued)

Situation 3.

(a) A change in the depreciable lives of fixed assets is a change in accounting estimate.

(b) In accordance with IFRS, the change in estimate should be reported in the current period and in future periods. Unlike a change in accounting policy, the change in accounting estimate should *not* be accounted for by presenting prior earnings data giving effect to the change as if it had been applied retrospectively.

(c) This change in accounting estimate will affect the statement of financial position in that the accumulated depreciation in the current and future years will increase at a different rate than previously reported, and this will also be reflected in depreciation expense in the income statement in the current and future years.

CA 22-4

1. This situation is a change in estimate. Whenever it is impossible to determine whether a change in policy or a change in estimate has occurred, the change should be considered a change in estimate. A change in estimate employs the current and prospective approach by:

    (a) Reporting current and future financial statements on the new basis.

    (b) Presenting prior periods' financial statements as previously reported.

    (c) Making no adjustments to current opening balances for purposes of catch-up.

2. This situation is considered a change in estimate because new events have occurred which call for a change in estimate. The accounting should be the same as discussed in 1.

3. This situation is considered a correction of an error. The general rule is that careful estimates which later prove to be incorrect should be considered changes in estimates. Where the estimate was obviously computed incorrectly because of lack of expertise or in bad faith, the adjustment should be considered an error. Changes due to error should employ the retroactive approach by:

    (a) Restating, via a prior period adjustment, the beginning balance of retained earnings for the current period.

    (b) Correcting all prior period statements presented in comparative financial statements. The amount of the error related to periods prior to the earliest year's statement presented for comparative purposes should be included as an adjustment to the beginning balance of retained earnings of that earliest year's statement.

4. No adjustment is necessary—a change in accounting policy is not considered to have happened if a new policy is adopted in recognition of events that have occurred for the first time.

5. This situation is considered a change in estimate because new events have occurred which call for a change in estimate. The accounting should be the same as discussed in 1.

CA 22-4 (Continued)

6. This situation is considered a change in accounting policy. A change in accounting policy should employ the retrospective approach by:

   (a) Reporting current results on the new basis.

   (b) Presenting prior period financial statements on a basis consistent with the newly adopted method.

   (c) Computing the cumulative effect of the new method in beginning retained earnings on the earliest year presented.

CA 22-5

Mr. Joe Davison, CEO Sports-Pro Athletics

Dear Mr. Davison:

You recently contacted me about two accounting changes made at Sports-Pro Athletics, Inc. in 2010. This letter details how you should account for each change.

Your change from one method of depreciation to another constitutes a change in accounting estimate. A change in estimate employs the current and prospective approach by reporting current and future financial statements on the new basis. Prior periods financial statements are presented as previously reported.

Your change in residual values for your office equipment is also considered a change in estimate. This type of change does not really affect previous financial statements and is thus accounted for currently and prospectively. The change is included in the most current period being reported. There is no need to restate prior periods' financial statements.

I hope that this information helps you account for the changes which have taken place at Sports-Pro Athletics. If you need further information, please contact me.

Sincerely,

CA 22-6

(a) The ethical issues are the honesty and integrity of Frost's financial reporting practices versus the Corporation's and the accounting manager's profit motives. Shortening the life of fixed assets from 10 to 6 years may be evidence that depreciation expense during the first five years were understated. Such a practice distorts Frost's operating results and misleads users of Frost's financial statements. If this practice is intentional, it is unethical.

(b) The primary stakeholders in the above situation include Frost's shareholders and creditors. Crane and his auditing firm are stakeholders because they know of the depreciation practices at Frost.

(c) Crane should report his finding to the partner-in-charge of the Frost engagement. If this practice is deemed to be intentional and fraudulent, then Crane's firm has a professional responsibility to report this incident to the highest levels of management within Frost (the Audit Committee of the Board of Directors).

FINANCIAL REPORTING PROBLEM

(a) M&S adopted the following policies during 2007 – 2008:

- **IFRS 7 – 'Financial Instruments: Disclosures' and the complementary amendment to IAS 1 – 'Presentation of Financial Statements – Capital Disclosures' were issued in August 2005 and have introduced revised and additional disclosures. This implementation has had no impact on the results or net assets of the Group.**

- **IFRIC 11 – 'IFRS 2 – Group and Treasury Share Transactions' was issued in November 2006. It clarifies the guidance for applying share-based payment arrangements to the separate financial statements of each group company. It is required to be implemented by the Group from 30 March 2008. It has had no material impact on the results or net assets of the Group but has led to a prior year adjustment in the Company's financial statements.**

- **IFRIC 14 – 'The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction' was issued in July 2007. It limits the recognition of a defined benefit asset when minimum funding requirements exist within a plan. It was implemented by the Group from 1 April 2007 and had no material impact on the results or net assets of the Group.**

(b) The estimates M&S discussed in 2008 were impairment of goodwill; impairment of pp&e; depreciation of pp&e; post-retirement benefits; and refunds and loyalty scheme accruals.

COMPARATIVE ANALYSIS CASE

Cadbury vs. Nestlé

(a) and (c) for Cadbury:

Recent Accounting Standards and Pronouncements

IFRS 8, Operating Segments has been adopted in advance of its effective date with effect from 1 January 2008. In addition to the adoption of IFRS 8, the Group has changed the measure of operating profit, which is disclosed segmentally to align with the way the chief operating decision maker assesses the performance of and allocates the Group's resources to the segments. As such the 2007 segmental analysis has been re-presented to allocate certain global Supply Chain, Commercial and Science and Technology costs which directly support the business to the regional operating segments.

On 7 May 2008, the Group completed the demerger of the Americas Beverages business and in December 2008 the Group announced it had signed a conditional agreement to sell the Australia Beverages business. The Income Statement and related notes for 2007 have been re-presented to classify these businesses as discontinued, in accordance with IFRS 5, "Non-current assets held for sale and discontinued operations" as described in Note 31.

The income statement and related notes for 2007 have been re-presented to classify the Americas Beverages business and the Australia Beverages business as discontinued.

COMPARATIVE ANALYSIS CASE (Continued)

(b) and (c) for Nestlé:

IFRIC 14 – IAS 19 – The limit on a defined benefit asset, minimum funding requirements and their interaction. This interpretation requires to determine the availability of refunds or reductions in future contributions in accordance with the terms and conditions of the plans and the statutory requirements of the plans of the respective jurisdictions. The retrospective application of IFRIC 14 impacted the 2007 Consolidated Financial Statements (refer to Note 32).

Reclassification of Financial Assets – Amendments to IAS 39 – Financial instruments: Recognition and Measurement and IFRS 7 – Financial Instruments: Disclosures. These amendments allow entities to reclassify non-derivative financial assets out of fair value through profit or loss if the assets are no longer held for the purpose of selling or repurchasing and if the entity has the intention and ability to hold them for the foreseeable future or until maturity. The Group did not reclassify any financial assets out of the fair value through profit or loss category in 2008.

IFRIC 14 effected the employee benefit assets, deferred tax liabilities, and total equity attributable to shareholders of the parent for 2007. The amounts were 1026, 233, and 793, respectively (million CHF). The Statement of recognised income and expense for the year ended 31 December 2007 was also effected. Actuarial gains/(losses) on defined benefit schemes was effected by (324) million CHF, and Taxes on equity items was effected by 73 million CHF. The first application of this interpretation did not affect the profit for the period nor earnings per share.

ABC CO.
Statement of Financial Position
at December 31

	2011	2010		2011	2010
PPE	$ 400	$ 400	Share capital	$ 500	$ 500
Accumulated depreciation	(120)	(80)	Retained earnings	908	745
	$ 280	$ 320			
Inventory	580	560			
Cash	548	365			
Total assets	1,408	1,245	*Total equity*	$1,408	$1,245

ABC CO.
Income Statement
for the Year Ended December 31,

	2011	2010
Sales	$550	$500
Cost of goods sold	330	290
Depreciation expense	40	40
Compensation expense	17	15
Net income	$163	$155

2010 purchase: $480 + P – $300 = $500; P = $320
2010 Beginning inventory using FIFO = $480 + $50 = $530
2010 Ending inventory using FIFO = $500 + $60 = $560
2010 Cost of goods sold using FIFO = $530 + $320 – $560 = $290
2010 Retained Earnings = $685 + $60 = $745

2011 Retained Earnings = $745 + $163 = $908
2011 Cost of goods sold = $560 + $350 – $580 = $330
2011 Depreciation Expense = $400/10 = $40
2011 Accumulated Depreciation = $80 + $40 = $120
2011 Cash = $365 + $550 – $350 – $17 = $548

ACCOUNTING, ANALYSIS, AND PRINCIPLES (Continued)

ANALYSIS

Average cost (as reported):

Inventory turnover = $300 ÷ $500 = 0.60

FIFO:

Inventory turnover = $290 ÷ $560 = 0.52

Inventory turnover is lower under FIFO, which leads to ROA being slightly higher. Under FIFO (in this example) COGS is lower because older costs that had been deferred in the inventory balance under average cost were brought to COGS. The inventory balance is higher because FIFO leaves the most recent inventory costs in the inventory account.

PRINCIPLES

The issue is consistency across time. When a company changes accounting policies, financial statements from one period are not really comparable to the financial statements of the next period because they are based on different accounting policies. IFRS requires restating past results presented for comparison to the new accounting policy so that financial statement readers can see how the company's financial position and performance have changed without the effects of an accounting change.

PROFESSIONAL RESEARCH

(a) The guidelines for reporting a change in accounting principle related to depreciation methods can be found in IAS 8, paragraphs 32-38, under the heading "Changes in accounting estimates."

(b) According to paragraph 14, "An entity shall change an accounting policy only if the change:

(1) is required by an IFRS; or

(2) results in the financial statements providing reliable and more relevant information about the effects of transactions, other events or conditions on the entity's financial position, financial performance or cash flows."

PROFESSIONAL SIMULATION

Journal Entry

Inventory	18,000*	
Retained Earnings....................................		18,000

*($20,000 + $24,000 + $27,000) – ($15,000 + $18,000 + $20,000)

Financial Statements

Computation of EPS for 2011

Basic EPS

Net income	$30,000	
Outstanding shares....................................	10,000	
Basic EPS..	$ 3.00	($30,000 ÷ 10,000)

Diluted EPS

Net income	$30,000
Add: Interest savings ($200,000 X 6%)	12,000
Adjusted net income	$42,000

Adjusted net income	$42,000	
Outstanding shares....................................	10,000	
Shares upon conversion............................	6,000*	
Diluted EPS	$ 2.63	($42,000 ÷ 16,000)

*$200,000 ÷ $1,000 = 200 bonds; 200 bonds X 30 = 6,000 shares

PROFESSIONAL SIMULATION (Continued)

Computation of EPS for 2010

Basic EPS

Net income	**$27,000**	
Outstanding shares	**10,000**	
Basic EPS	**$ 2.70**	**($27,000 ÷ 10,000)**

Diluted EPS

Net income	**$27,000**	
Add: Interest savings ($200,000 X 6%)	**12,000**	
Adjusted net income	**$39,000**	
Adjusted net income	**$39,000**	
Outstanding shares	**10,000**	
Shares upon conversion	**6,000**	
Diluted EPS	**$ 2.44**	**($39,000 ÷ 16,000)**

EPS Presentation

	2011	2010
Net income	**$30,000**	**$27,000**
Basic EPS	**$ 3.00**	**$ 2.70**
Diluted EPS	**$ 2.63**	**$ 2.44**

CHAPTER 23

Statement of Cash Flows

ASSIGNMENT CLASSIFICATION TABLE (BY TOPIC)

Topics	Questions	Brief Exercises	Exercises	Problems	Concepts for Analysis
1. Format, objectives purpose, and source of statement.	1, 2, 7, 8, 12				1, 2, 5, 6
2. Classifying investing, financing, and operating activities.	3, 4, 5, 6, 16, 17, 19,	1, 2, 3, 8, 12	1, 2, 10		1, 3, 4, 5
3. Direct vs. indirect methods of preparing operating activities.	9, 20	4, 5, 9, 10, 11	3, 4		5
4. Statement of cash flows—direct method.	11, 13, 14	6, 7	3, 5, 7, 9, 12, 13	3, 4, 5	
5. Statement of cash flows—indirect method.	10, 13, 15, 16	10, 11	4, 6, 8, 11, 14, 15, 16, 17, 18	1, 2, 4, 5, 6, 7, 8	2
6. Preparing schedule of non-cash investing and financing activities.	18	12		6, 7, 8	5
7. Worksheet adjustments.	21	13	19, 20, 21		

ASSIGNMENT CLASSIFICATION TABLE (BY LEARNING OBJECTIVE)

Learning Objectives	Brief Exercises	Exercises	Problems
1. Describe the purpose of the statement of cash flows.			
2. Identify the major classifications of cash flows.	3	1, 2, 10, 16	
3. Differentiate between net income and net cash flows from operating activities.	4, 5, 9, 10, 11	2, 3, 4, 5, 6, 7, 8, 16	5, 6
4. Contrast the direct and indirect methods of calculating net cash flow from operating activities.	4, 5, 6, 7, 9	3, 4, 5, 6, 7, 8	5, 6, 7
5. Determine net cash flow from investing and financing activities.	1, 2	16	
6. Prepare a statement of cash flows.	8	9, 11, 12, 13, 14, 15, 17, 18	1, 2, 3, 4, 5, 6, 7, 8
7. Identify sources of information for a statement of cash flows.			1, 2, 4, 7, 8
8. Discuss special problems in preparing a statement of cash flows.	12	10, 18	1, 2, 4, 5, 6, 7, 8
9. Explain the use of a worksheet in preparing a statement of cash flows.	13	19, 20, 21	

ASSIGNMENT CHARACTERISTICS TABLE

Item	Description	Level of Difficulty	Time (minutes)
E23-1	Classification of transactions.	Simple	10–15
E23-2	Statement presentation of transactions—indirect method.	Moderate	20–30
E23-3	Preparation of operating activities section—indirect method, periodic inventory.	Simple	15–25
E23-4	Preparation of operating activities section—direct method.	Simple	20–30
E23-5	Preparation of operating activities section—direct method.	Simple	20–30
E23-6	Preparation of operating activities section—indirect method.	Simple	15–20
E23-7	Computation of operating activities—direct method.	Simple	15–20
E23-8	Schedule of net cash flow from operating activities—indirect method.	Moderate	20–30
E23-9	SCF—direct method.	Moderate	20–30
E23-10	Classification of transactions.	Moderate	25–35
E23-11	SCF—indirect method.	Moderate	30–35
E23-12	SCF—direct method.	Moderate	20–30
E23-13	SCF—direct method.	Moderate	30–40
E23-14	SCF—indirect method.	Moderate	30–40
E23-15	SCF—indirect method.	Moderate	25–35
E23-16	Cash provided by operating, investing, and financing activities.	Moderate	30–40
E23-17	SCF—indirect method and statement of financial position.	Moderate	30–40
E23-18	Partial SCF—indirect method.	Moderate	25–30
E23-19	Worksheet analysis of selected accounts.	Moderate	20–25
E23-20	Worksheet analysis of selected transactions.	Moderate	20–25
E23-21	Worksheet preparation.	Moderate	45–55
P23-1	SCF—indirect method.	Moderate	40–45
P23-2	SCF—indirect method.	Moderate	50–60
P23-3	SCF—direct method.	Complex	50–60
P23-4	SCF—direct method.	Moderate	45–60
P23-5	SCF—indirect method, and net cash flow from operating activities, direct method.	Moderate	40–50
P23-6	SCF—direct and indirect methods from comparative financial statements.	Moderate	30–40
P23-7	SCF—direct and indirect methods.	Moderate	30–40
P23-8	Indirect SCF.	Moderate	30–40
CA23-1	Analysis of improper SCF.	Moderate	30–35
CA23-2	SCF theory and analysis of improper SCF.	Moderate	30–35
CA23-3	SCF theory and analysis of transactions.	Moderate	30–35
CA23-4	Analysis of transactions' effect on SCF.	Moderate	20–30
CA23-5	Purpose and elements of SCF.	Complex	30–40
CA23-6	Cash flow reporting, ethics.	Moderate	20–30

ANSWERS TO QUESTIONS

1. The main purpose of the statement of cash flows is to show the change in cash of a company from one period to the next. The statement of cash flows provides information about a company's operating, financing, and investing activities. More precisely, it provides information about the company's cash inflows and outflows for the period.

2. Some uses of this statement are:

Assessing future cash flows: Income data when augmented with current cash flow data provide a better basis for assessing future cash flows.

Assessing quality of income: Some believe that cash flow information is more reliable than income information because income involves a number of assumptions, estimates and valuations.

Assessing operating capability: Whether an enterprise is able to maintain its operating capability, provide for future growth, and distribute dividends to the owners depends on whether adequate cash is being or will be generated.

Assessing financial flexibility and liquidity: Cash flow data indicate whether a company should be able to survive adverse operating problems and whether a company might have difficulty in meeting obligations as they become due, paying dividends, or meeting other recurring costs.

Providing information on financing and investing activities: Cash flows are classified by their effect on statement of financial position items; investing activities affect assets while financing activities affect liabilities and equity.

3. Investing activities generally involve non-current assets and include (1) lending money and collecting on those loans and (2) acquiring and disposing of investments and productive long-lived assets. Financing activities, on the other hand, involve liability and equity items and include (1) obtaining cash from creditors and repaying the amounts borrowed and (2) obtaining capital from owners and providing them with a return on their investment. Operating activities include all transactions and events that are not investing and financing activities. Operating activities involve the cash effects of transactions that enter into the determination of net income.

4. Examples of sources of cash in a statement of cash flows include cash from operating activities, issuance of debt, issuance of ordinary shares, sale of investments, and the sale of property, plant, and equipment. Examples of uses of cash include cash used in operating activities, payment of cash dividends, redemption of debt, purchase of investments, redemption of ordinary shares, and the purchase of property, plant, and equipment.

5. Preparing the statement of cash flows involves three major steps:
(1) Determine the change in cash. This is simply the difference between the beginning and ending cash balances.
(2) Determine the net cash flow from operating activities. This involves analyzing the current year's income statement, comparative statements of financial position and selected transaction data.
(3) Determine cash flows from investing and financing activities. All other changes in statement of financial position accounts are analyzed to determine their effect on cash.

6. Purchase of land—investing;
Payment of dividends—financing;
Cash sales—operating;
Purchase of treasury shares—financing.

7. Comparative statements of financial position, a current income statement, and certain transaction data all provide information necessary for preparation of the statement of cash flows. Comparative statements of financial position indicate how assets, liabilities, and equities have changed during the period. A current income statement provides information about the amount of cash provided from operating activities. Certain transactions provide additional detailed information needed to determine whether cash was provided or used during the period.

8. It is necessary to convert accrual-based net income to a cash basis because net income includes items that do not provide or use cash. An example would be an increase in accounts receivable. If accounts receivable increased during the period, revenues reported on the accrual basis would be higher than the actual cash revenues received. Thus, accrual basis net income must be adjusted to reflect the net cash flow from operating activities.

9. Net cash flow from operating activities under the **direct method** is the difference between cash revenues and cash expenses. The direct method adjusts the revenues and expenses directly to reflect the cash basis. This results in cash net income, which is equal to "net cash flow from operating activities."

The **indirect method** involves adjusting accrual net income. This is done by starting with accrual net income and adding or subtracting non-cash items included in net income. Examples of adjustments include depreciation and other non-cash expenses and changes in the balances of current asset and current liability accounts from one period to the next.

10. Net cash flow from operating activities is $3,820,000. Using the indirect method, the solution is:

Net income		$3,500,000
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation expense	$ 520,000	
Accounts receivable increase	(500,000)	
Accounts payable increase	300,000	320,000
Net cash provided by operating activities		$3,820,000

11.

Accrual basis sales	£100,000
Less: Increase in accounts receivable	30,000
	70,000
Less: Writeoff of accounts receivable	2,000
Cash sales	£ 68,000

12. A number of factors could have caused an increase in cash despite the net loss. These are: (1) high cash revenues relative to low cash expenses, (2) sales of property, plant, and equipment, (3) sales of investments, and (4) issuance of debt or ordinary shares.

13.

Declared dividends	$260,000
Add: Dividends payable (beginning of year)	85,000
	345,000
Deduct: Dividends payable (end of year)	90,000
Cash paid in dividends during the year	$255,000

14. To determine cash payments to suppliers, it is first necessary to find purchases for the year. To find purchases, cost of goods sold is adjusted for the change in inventory (increased when inventory increases or decreased when inventory decreases). After purchases are computed, cash payments to suppliers are determined by adjusting purchases for the change in accounts payable. An increase (decrease) in accounts payable is deducted from (added to) purchases to determine cash payments to suppliers.

15. Cash flows from operating activities

Net income		€320,000
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation expense	€124,000	
Amortization of patent	40,000	
Loss on sale of plant assets	21,000	185,000
Net cash provided by operating activities		€505,000

16. (a) Cash flows from operating activities

Net income		XXXX
Adjustments to reconcile net income to net cash provided by operating activities:		
Loss on sale of plant assets [(\$18,000 ÷ 10) x $3^1/_2$] – \$4,000		\$ 2,300
Cash flows from investing activities		
Sale of plant assets		\$ 4,000

(b) Cash flows from financing activities

Issuance of ordinary shares		\$410,000

(c) No effect on cash; not shown in the statement of cash flows or in any related schedules or notes.

Note to instructor: The change in net accounts receivable is an adjustment to net income under the indirect method.

(d) Cash flows from operating activities

Net loss		\$(50,000)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Depreciation expense	\$22,000	
Gain on sale of non-trading equity investments	(9,000)	
Cash flows from investing activities		
Sale of non-trading equity investments		\$ 38,000

17. (a) Operating activity.
(b) Financing activity.
(c) Investing activity.
(d) Operating activity.
(e) Non-cash investing and financing activities in the notes.
(f) Financing activity.
(g) Operating activity.
(h) Financing activity.
(i) Non-cash investing and financing activities in the notes.
(j) Financing activity.
(k) Investing activity.
(l) Operating activity.

18. Examples of non-cash transactions are: (1) issuance of shares for non-cash assets, (2) issuance of shares to liquidate debt, (3) issuance of bonds or notes for non-cash assets, and (4) non-cash exchanges of property, plant, and equipment, and (5) refinancing of long-term debt.

19. Cash flows from operating activities

Net income	XXXX
Adjustments to reconcile net income to net cash provided by operating activities:	
Gain on redemption of bonds payable	\$ (120,000)
Cash flows from financing activities	
Redemption of bonds payable	\$(1,880,000)

20. Arguments for the indirect or reconciliation method are:

(a) By providing a reconciliation between net income and cash provided by operations, the differences are highlighted.

(b) The direct method is nothing more than a cash basis income statement which will confuse and create uncertainty for financial statement users who are familiar with the accrual-based income statements.

(c) There is some question as to whether the direct method is cost/benefit-justified as this method would probably lead to additional preparation cost because the financial records are not maintained on a cash basis.

21. A worksheet is desirable because it allows the orderly accumulation and classification of data that will appear on the statement of cash flows. It is an optional but efficient device that aids in the preparation of the statement of cash flows.

22. As in U.S. GAAP, the statement of cash flows is a required statement for IFRS. In addition, the content and presentation of an IFRS statement of cash flows is similar to one used for U.S. GAAP. However, the disclosure requirements related to the statement of cash flows are more extensive under U.S. GAAP.

Other similarities include: (1) Companies preparing financial statements under IFRS must prepare a statement of cash flows as an integral part; (2) Both IFRS and U.S. GAAP require that the statement of cash flows should have three major sections—operating, investing and financing—along with changes in cash and cash equivalents; (3) Similar to U.S. GAAP, the cash flow statement can be prepared using either the indirect or direct method under IFRS. In both U.S. and international settings, companies choose for the most part to use the indirect method for reporting net cash flows from operating activities.

Notable differences are (1) IFRS encourages companies to disclose the aggregate amount of cash flows that are attributable to the increase in operating capacity separately from those cash flows that are required to maintain operating capacity; (2) The definition of cash equivalents used in IFRS is similar to that used in U.S. GAAP. A major difference is that in certain situations bank overdrafts are considered part of cash and cash equivalents under IFRS (which is not the case in U.S. GAAP). Under U.S. GAAP, bank overdrafts are classified as financing activities; (3) IFRS requires that non-cash investing and financing activities be excluded from the statement of cash flows. Instead, these non-cash activities should be reported elsewhere. This requirement is interpreted to mean that non-cash investing and financing activities should be disclosed in the notes to the financial statements instead of in the financial statements. Under U.S. GAAP, companies may present this information in the cash flow statement. IFRS allows interest paid and received to be classified as either operating or investing activities. U.S. GAAP classifies interest paid and received as an operating activity.

23. The following table relates to the classification of interest, dividends, and taxes and indicates relative degree of choice inherent under IFRS. As some note, this increased degree of choice can lead to expanded disclosure under IFRS.

Item	**U.S. GAAP**	**IFRS**
Interest paid	Operating	Operating or financing
Interest received	Operating	Operating or investing
Dividends paid	Financing	Operating or financing
Dividends received	Operating	Operating or investing
Taxes paid	Operating	Operating—unless specific identification with financing or investing

25. Presently, the FASB and the IASB are involved in a joint project on the presentation and organization of information in the financial statements. The FASB favors presentation of operating cash flows using the direct method only. However, the majority of IASB members express a preference for not requiring use of the direct method of reporting operating cash flows. So the two Boards will have to resolve their differences in this area in order to issue a converged standard for the statement of cash flows. U.S. GAAP rules related to cash flow reporting are less flexible than IFRS, but this is not a major concern.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 23-1

Cash flows from investing activities	
Sale of land	$ 180,000
Purchase of equipment	(415,000)
Purchase of equity investments	(59,000)
Net cash used by investing activities	$(294,000)

BRIEF EXERCISE 23-2

Cash flows from financing activities	
Issuance of ordinary shares	€ 250,000
Issuance of bonds payable	510,000
Payment of dividends	(350,000)
Purchase of treasury shares	(46,000)
Net cash provided by financing activities	€ 364,000

BRIEF EXERCISE 23-3

(a)	P-I	(g)	P-F	(m)	N
(b)	A	(h)	D	(n)	D
(c)	R-F	(i)	P-I	(o)	R-F
(d)	A	(j)	A	(p)	P-F
(e)	R-I	(k)	D	(q)	R-I, A
(f)	R-I, D	(l)	R-F	(r)	P-F

BRIEF EXERCISE 23-4

Cash flows from operating activities		
Cash received from customers		
(€200,000 – €12,000)		**€188,000**
Cash payments		
To suppliers		
(€120,000 + €11,000 – €13,000)	**€118,000**	
For operating expenses		
(€50,000 – €21,000)	**29,000**	**147,000**
Net cash provided by operating activities		**€ 41,000**

BRIEF EXERCISE 23-5

Cash flows from operating activities		
Net income		**€30,000**
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation expense	**€ 21,000**	
Increase in accounts payable	**13,000**	
Increase in accounts receivable	**(12,000)**	
Increase in inventory	**(11,000)**	**11,000**
Net cash provided by operating activities		**€41,000**

BRIEF EXERCISE 23-6

Sales	**$420,000**
Add: Decrease in accounts receivable ($72,000 – $54,000)	**18,000**
Cash receipts from customers	**$438,000**

BRIEF EXERCISE 23-7

Cost of goods sold	**€500,000**
Add: Increase in inventory (€113,000 – €95,000)	**18,000**
Purchases	**518,000**
Deduct: Increase in accounts payable (€69,000 – €61,000)	**8,000**
Cash payments to suppliers	**€510,000**

BRIEF EXERCISE 23-8

Net cash provided by operating activities	£531,000
Net cash used by investing activities	(963,000)
Net cash provided by financing activities	585,000
Net increase in cash	153,000
Cash, 1/1/10	333,000
Cash, 12/31/10	£486,000

BRIEF EXERCISE 23-9

(a) Cash flows from operating activities

Cash received from customers	$90,000
Cash paid for expenses ($60,000 – $1,840)	58,160
Net cash provided by operating activities	$31,840

(b) Cash flows from operating activities

Net income	$40,000
Increase in net accounts receivable ($26,960[a] – $18,800[b])	(8,160)
Net cash provided by operating activities	$31,840

[a]($29,000 – $2,040) [b]($20,000 – $1,200)

BRIEF EXERCISE 23-10

Cash flows from operating activities		
Net income		$50,000
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation expense	17,000	
Increase in accounts payable	12,300	
Increase in accounts receivable	(11,000)	
Increase in inventory	(7,400)	10,900
Net cash provided by operating activities		$60,900

BRIEF EXERCISE 23-11

Cash flows from operating activities		
Net loss		($70,000)
Adjustments to reconcile net income (loss) to net cash provided by operating activities		
Depreciation expense	81,000	
Increase in accounts receivable	(8,100)	72,900
Net cash provided by operating activities		$ 2,900

BRIEF EXERCISE 23-12

(a)	Land	40,000	
	Share Capital—Ordinary		10,000
	Share Premium—Ordinary		30,000

(b) No effect

(c) Non-cash Investing and Financing Activities

Purchase of land through issuance of ordinary shares	$40,000

This is presented in the notes to the financial statements.

BRIEF EXERCISE 23-13

(a)	Operating—Net Income	317,000,000	
	Retained Earnings		317,000,000
(b)	Retained Earnings	120,000,000	
	Financing—Cash Dividends		120,000,000
(c)	Equipment	114,000,000	
	Investing—Purchase of Equipment		114,000,000
(d)	Investing—Sale of Equipment	10,000,000	
	Accumulated Depreciation—Equipment	32,000,000	
	Equipment		40,000,000
	Operating—Gain on Sale of Equipment		2,000,000*

*¥10,000,000 – (¥40,000,000 – ¥32,000,000)

SOLUTIONS TO EXERCISES

EXERCISE 23-1 (10–15 minutes)

(a) Operating—add to net income.
(b) Financing activity.
(c) Investing activity.
(d) Operating—add to net income.
(e) Non-cash investing and financing activity (presented in the notes).
(f) Financing activity.
(g) Operating—add to net income.
(h) Financing activity.
(i) Non-cash investing and financing activity (presented in the notes).
(j) Financing activity.
(k) Operating—deduct from net income.
(l) Investing activity.

EXERCISE 23-2 (20–30 minutes)

(a)

Plant assets (cost)	€25,000
Accumulated depreciation ([€25,000 ÷ 10] X 6)	15,000
Book value at date of sale	10,000
Sale proceeds	(5,300)
Loss on sale	€ 4,700

The loss on sale of plant assets is reported in the operating activities section of the statement of cash flows. It is added to net income to arrive at net cash provided by operating activities.

The sale proceeds of €5,300 are reported in the investing activities section of the statement of cash flows as follows:

Sale of plant assets	€5,300

(b) Shown in the financing activities section of a statement of cash flows as follows:

Sale of ordinary shares	€330,000

(c) The writeoff of the uncollectible accounts receivable of €27,000 is not reported on the statement of cash flows. The writeoff reduces the Allowance for Doubtful Accounts balance and the Accounts Receivable balance. It does not affect cash flows.

Note to instructor: The change in net accounts receivable is sometimes used to compute an adjustment to net income under the indirect method.

(d) The net loss of €50,000 should be reported in the operating activities section of the statement of cash flows. Depreciation of €22,000 is reported in the operating activities section of the statement of cash flows. The gain on sale of land also appears in the operating activities section of the statement of cash flows. The proceeds from the sale of land of €39,000 are reported in the investing activities section of the statement of cash flows. These four items might be reported as follows:

Cash flows from operating activities		
Net loss		**€(50,000)**
Adjustments to reconcile net income to net cash used in operating activities*:		
Depreciation	**€22,000**	
Gain on sale of land	**(9,000)**	

***Either net cash used or provided depending upon other adjustments. Given only the adjustments in (d), the "net cash used" should be employed.**

Cash flows from investing activities	
Sale of land	**€39,000**

(e) The purchase of the certificate of deposit is not reported in the statement of cash flows. This instrument is considered a cash equivalent and therefore cash and cash equivalents have not changed as a result of this transaction.

(f) Patent amortization of €20,000 is reported in the operating activities section of the statement of cash flows. It is added to net income in arriving at net cash provided by operating activities.

EXERCISE 23-2 (Continued)

(g) **The exchange of ordinary shares for an investment in Plumlee is reported as a "non-cash investing and financing activity." It can be shown in a note as follows:**

Non-cash investing and financing activities	
Purchase of investment by issuance of ordinary shares	**€900,000**

(h) **The purchase of treasury shares is reported as a cash payment in the financing activities section of the statement of cash flows.**

(i) **The unrealized holding gain on a debt investment not held for collection increases net income but not net cash provided by operating activities. As a result the unrealized holding gain is shown as a deduction from net income to compute cash flows from operating activities.**

EXERCISE 23-3 (15–25 minutes)

RODRIQUEZ COMPANY
Partial Statement of Cash Flows
For the Year Ended December 31, 2010

Cash flows from operating activities		
Net income		**$1,050,000**
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation expense	**$ 60,000**	
Decrease in accounts receivable	**310,000**	
Decrease in inventory	**300,000**	
Increase in prepaid expenses	**(170,000)**	
Decrease in accounts payable	**(275,000)**	
Decrease in accrued expenses payable	**(120,000)**	**105,000**
Net cash provided by operating activities		**$1,155,000**

EXERCISE 23-4 (20–30 minutes)

RODRIQUEZ COMPANY
Partial Statement of Cash Flows
For the Year Ended December 31, 2010

Cash flows from operating activities				
Cash receipts from customers			$7,210,000	(a)
Cash payments				
To suppliers	$4,675,000	(b)		
For operating expenses	1,380,000	(c)	6,055,000	
Net cash provided by operating activities			$1,155,000	

Computations:

(a) Cash receipts from customers

Sales	$6,900,000
Add: Decrease in accounts receivable	310,000
Cash receipts from customers	$7,210,000

(b) Cash payments to suppliers

Cost of goods sold	$4,700,000
Deduct: Decrease in inventories	300,000
Purchases	4,400,000
Add: Decrease in accounts payable	275,000
Cash payments to suppliers	$4,675,000

(c) Cash payments for operating expenses

Operating expenses, exclusive of depreciation		$1,090,000*
Add: Increase in prepaid expenses	$170,000	
Decrease in accrued expenses payable	120,000	290,000
Cash payments for operating expenses		$1,380,000

*$450,000 + ($700,000 – $60,000)

EXERCISE 23-5 (20–30 minutes)

NORMAN COMPANY
Partial Statement of Cash Flows
For the Year Ended December 31, 2010

Cash flows from operating activities				
Cash receipts from customers.........			€862,000	(a)
Cash payments.................................				
For operating expenses............	€609,000	(b)		
For income taxes.......................	44,500	(c)	653,500	
Net cash provided by operating activities...			€208,500	

(a) Computation of cash receipts from customers:

Revenue from fees..	€840,000
Add: Decrease in accounts receivable (€59,000 – €37,000).................................	22,000
Cash receipts from customers	€862,000

(b) Computation of cash payments:

Operating expenses per income statement....	€624,000
Deduct: Increase in accounts payable (€46,000 – €31,000)............................	15,000
Cash payments for operating expenses.........	€609,000

(c) Computation for income tax:

Income tax expense per income statement....	€ 40,000
Add: Decrease in income taxes payable (€8,500 – €4,000).....................................	4,500
Cash payments for income taxes...................	€ 44,500

EXERCISE 23-6 (15–20 minutes)

NORMAN COMPANY
Partial Statement of Cash Flows
For the Year Ended December 31, 2010

Cash flows from operating activities		
Net income		€90,000
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation expense	€60,000	
Loss on sale of equipment	26,000	
Decrease in accounts receivable	22,000	
Increase in accounts payable	15,000	
Decrease in income taxes payable	(4,500)	118,500
Net cash provided by operating activities		€208,500

EXERCISE 23-7 (15–20 minutes)

Situation A: Cash flows from operating activities

Cash receipts from customers ($200,000 – $71,000)	$129,000
Cash payments for operating expenses ($110,000 – $39,000)	71,000
Net cash provided by operating activities	$ 58,000

Situation B: (a) Computation of cash payments to suppliers

Cost of goods sold	$310,000
Plus: Increase in inventory	21,000
Decrease in accounts payable	17,000
Cash payments to suppliers	$348,000

(b) Computation of cash payments for operating expenses

Operating expenses	$230,000
Deduct: Decrease in prepaid expenses	8,000
Increase in accrued expenses payable	11,000
Cash payments for operating expenses	$211,000

EXERCISE 23-8 (20–30 minutes)

Cash flows from operating activities		
Net income		**$145,000**
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation expense	**$39,000**	
Gain on sale of investment [($200 – $165) X 100]	**(3,500)**	
Decrease in accounts receivable	**12,000**	
Income from equity method investment ($27,000 X .30)	**(8,100)**	
Dividends from equity investment ($2,000 X .30)	**600**	**40,000**
Net cash provided by operating activities		**$185,000**

Other comments:

No. 1 is shown as a cash inflow from the issuance of treasury shares and cash outflow for the purchase of treasury shares, both financing activities.

No. 2 is shown as a cash inflow from investing activities of $20,000 and the gain of $3,500 is deducted from net income in the operating activities section.

No. 3 is a non-cash expense (Bad Debt Expense) in the income statement. Bad debt expense is not handled separately when using the indirect method. It is part of the change in net accounts receivable.

No. 4 is a non-cash investing and financing activity (presented in the notes to the financial statements).

No. 6 is an increase in the investment account related to net income which does not increase cash flow. The net income amount must be deducted from net cash flow from operating activities.

No. 7 (dividends received) is added to net income. Another alternative is to net the company's pro-rata share of the dividend against the income from equity method investment amount reported in the cash flows from operating activities.

No. 8 is not shown on a statement of cash flows.

EXERCISE 23-9 (20–30 minutes)

1.	Sales		$538,800
	Deduct: Increase in accounts receivable, net of write-offs [$33,000 – ($30,000 – $3,800)]		6,800
	Cash collected from customers		$532,000
2.	Cost of goods sold		$250,000
	Deduct: Decrease in inventory ($47,000 – $31,000)		16,000
	Purchases		234,000
	Deduct: Increase in accounts payable ($25,000 – $17,000)		8,000
	Cash payments to suppliers		$226,000
3.	Interest expense		$ 4,300
	Deduct: Decrease in unamortized bond discount		500
	Cash paid for interest		$ 3,800
4.	Income tax expense		$ 20,400
	Add: Decrease in income taxes payable ($29,100 – $21,000)		8,100
	Deduct: Increase in deferred income taxes ($5,300 – $4,600)		700
	Cash paid for income taxes		$ 27,800
5.	Selling expenses		$141,500
	Deduct: Depreciation ($3,000* X 1/3)	1,000	
	Bad debts expense	5,000	6,000
	Cash paid for selling expenses		$135,500

*($16,500 – $13,500)

EXERCISE 23-10 (25–35 minutes)

1. The solution can be determined through use of a T-account for property, plant, and equipment.

Property, Plant & Equipment

	Debit	Credit	
12/31/09	247,000	45,000	Equipment sold
Equipment from exchange of B/P	25,000		
Payments for purchase of PP&E	?		
12/31/10	277,000		

Payments = $277,000 + $45,000 – $247,000 – $25,000
= <u>$50,000</u>

IFRS states that investing activities include the acquisition and disposition of long-term productive assets. Accordingly, the purchase of property, plant, and equipment is an investing activity. Note that the acquisition of property, plant, and equipment in exchange for bonds payable would be disclosed in the notes as a non-cash investing and financing activity.

2. The solution can be determined through use of a T-account for accumulated depreciation.

Accumulated Depreciation

	Debit	Credit	
		167,000	12/31/09
		38,000	Depreciation expense
Equipment sold	?		
		178,000	12/31/10

Accumulated depreciation on equipment sold = $167,000 + $38,000 – $178,000 = <u>$27,000</u>

The entry to reflect the sale of equipment is:

Cash (proceeds from sale of equipment)			
($45,000 + $14,500 – $27,000)	32,500		
Accumulated Depreciation	27,000		
Property, Plant, and Equipment		45,000	(given)
Gain on Sale of Equipment		14,500	(given)

EXERCISE 23-10 (Continued)

The proceeds from the sale of equipment of $32,500 are considered an investing activity. Investing activities include the acquisition and disposition of long-term productive assets.

3. The cash dividends paid can be determined by analyzing T-accounts for Retained Earnings and Dividends Payable.

Retained Earnings

	Debit	Credit	
		91,000	12/31/09
Dividends declared	?	31,000	Net income
		104,000	12/31/10

Dividends declared = $91,000 + $31,000 – $104,000
= $18,000

Dividends Payable

	Debit	Credit	
		5,000	12/31/09
		18,000	Dividends declared
Cash dividends paid	?		
		8,000	12/31/10

Cash dividends paid = $5,000 + $18,000 – $8,000
= $15,000

Financing activities include all cash flows involving liabilities and equity other than operating items. Payment of cash dividends is thus a financing activity.

4. The redemption of bonds payable amount is determined by setting up a T-account.

Bonds Payable

	Debit	Credit	
		46,000	12/31/09
		25,000	Issuance of B/P for PP&E
Redemption of B/P	?		
		49,000	12/31/10

The problem states that there was no amortization of bond premium or discount; thus, the redemption of bonds payable is the only change not accounted for.

EXERCISE 23-10 (Continued)

Redemption of bonds payable = $46,000 + $25,000 – $49,000
= $22,000

Financing activities include all cash flows involving liabilities and equity other than operating items. Therefore, redemption of bonds payable is considered a financing activity.

EXERCISE 23-11 (30–35 minutes)

FAIRCHILD COMPANY
Statement of Cash Flows
For the Year Ended December 31, 2010
(Indirect Method)

Cash flows from operating activities		
Net income		€ 810
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation expense (€1,200 – €1,170)	€ 30	
Gain on sale of investments	(80)	
Decrease in inventory	300	
Increase in accounts payable	400	
Increase in receivables	(450)	
Decrease in accrued liabilities	(50)	150
Net cash provided by operating activities		960
Cash flows from investing activities		
Sale of held for collection investments [(€1,470 – €1,300) + €80]	250	
Purchase of plant assets [(€1,900 – €1,700) – €70]	(130)	
Net cash provided by investing activities		120
Cash flows from financing activities		
Issuance of ordinary shares [(€1,900 – €1,700) – €70]	130	
Retirement of bonds payable	(250)	
Payment of cash dividends	(260)	
Net cash used by financing activities		(380)
Net increase in cash		700
Cash, January 1, 2010		1,100
Cash, December 31, 2010		€1,800
<u>Non-cash investing and financing activities</u>*		
Issuance of ordinary shares for plant assets		€ 70

*This information is presented in the notes.

EXERCISE 23-12 (20–30 minutes)

FAIRCHILD COMPANY
Statement of Cash Flows
For the Year Ended December 31, 2010
(Direct Method)

Cash flows from operating activities		
Cash collections from customers		€6,450[a]
Less: Cash paid for merchandise	€4,000[b]	
Cash paid for selling/administrative expenses	950[c]	
Cash paid for income taxes	540	5,490
Net cash provided by operating activities		960
Cash flows from investing activities		
Sale of held-for-collection investments [(€1,470 – €1,300) + €80]	250	
Purchase of plant assets [(€1,900 – €1,700) – €70]	(130)	
Net cash provided by investing activities		120
Cash flows from financing activities		
Issuance of ordinary shares [(€1,900 – €1,700) – €70]	130	
Retirement of bonds payable	(250)	
Payment of cash dividends	(260)	
Net cash used by financing activities		(380)
Net increase in cash		700
Cash, January 1, 2010		1,100
Cash, December 31, 2010		€1,800
Non-cash investing and financing activities		
Issuance of ordinary shares for plant assets		€ 70[d]

[a]€6,900 – (€1,750 – €1,300)
[b]€4,700 – (€1,900 – €1,600) – (€1,200 – €800)
[c](€930 – €30) + (€250 – €200)
[d]This information is presented in the notes to the financial statements.

EXERCISE 23-13 (30–40 minutes)

ANDREWS INC.
Statement of Cash Flows
For the Year Ended December 31, 2010

Cash flows from operating activities		
Less: Cash received from customers		€325,150[a]
Cash paid to suppliers	€151,000[b]	
Cash paid for operating expenses	82,000[c]	
Cash paid for interest	11,400	
Cash paid for income taxes	8,750[d]	253,150
Net cash provided by operating activities		72,000
Cash flows from investing activities		
Sale of equipment		
[€30,000 – (€30,000 X .7)] + €2,000	11,000	
Purchase of equipment		
[€154,000 – (€130,000 – €30,000)]	(54,000)	
Purchase of non-trading investments	(17,000)	
Net cash used by investing activities		(60,000)
Cash flows from financing activities		
Principal payment on short-term loan	(2,000)	
Principal payment on long-term loan	(7,000)	
Dividend payments	(6,000)	
Net cash used by financing activities		(15,000)
Net decrease in cash		(3,000)
Cash, January 1, 2010		9,000
Cash, December 31, 2010		€ 6,000

[a]Sales	€338,150
Increase in accounts receivable	(13,000)
Cash received from customers	€325,150

[b]Cost of goods sold	€175,000
Increase in accounts payable	(4,000)
Decrease in inventories	(20,000)
Cash paid to suppliers	€151,000

[c]Operating expenses	€120,000
Increase in prepaid rent	1,000
Depreciation expense	
€35,000 – [€25,000 – (€30,000 X .70)]	(31,000)
Amortization of copyright	(4,000)
Increase in wages payable	(4,000)
Cash paid for operating expenses	€ 82,000

[d]Income tax expense	€ 6,750
Decrease in income taxes payable	2,000
Cash paid for income taxes	€ 8,750

EXERCISE 23-14 (30–40 minutes)

ANDREWS INC.
Statement of Cash Flows
For the Year Ended December 31, 2010

Cash flows from operating activities		
Net income		€27,000
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation expense	€31,000*	
Amortization of copyright	4,000	
Gain on sale of equipment	(2,000)	
Decrease in inventories	20,000	
Increase in wages payable	4,000	
Increase in accounts payable	4,000	
Increase in prepaid rent	(1,000)	
Increase in accounts receivable	(13,000)	
Decrease in income taxes payable	(2,000)	45,000
Net cash provided by operating activities		72,000
Cash flows from investing activities		
Sale of equipment [(€30,000 X 30%) + €2,000]	11,000	
Purchase of equipment [€154,000 – (€130,000 – €30,000)]	(54,000)	
Purchase of non-trading investments	(17,000)	
Net cash used by investing activities		(60,000)

*€35,000 – [€25,000 – (€30,000 X 70%)]

EXERCISE 23-14 (Continued)

Cash flows from financing activities		
Principal payment on short-term loan	(2,000)	
Principal payment on long-term loan	(7,000)	
Dividend payments	(6,000)	
Net cash used by financing activities		(15,000)
Net decrease in cash		(3,000)
Cash, January 1, 2010		9,000
Cash, December 31, 2010		€ 6,000

Note to instructor: Supplemental disclosures of cash flow information is a follows:

Cash paid during the year for:

Interest	€11,400
Income taxes	€ 8,750

EXERCISE 23-15 (25–35 minutes)

MORGANSTERN COMPANY
Statement of Cash Flows
For the Year Ended December 31, 2010

Cash flows from operating activities		
Net income		$ 46,000*
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation expense	$ 28,000	
Loss on sale of investments	9,000	
Loss on sale of plant assets [($60,000 X .20) – $8,000]	4,000	
Increase in current assets other than cash	(27,000)	
Increase in current liabilities	18,000	32,000
Net cash provided by operating activities		78,000
Cash flows from investing activities		
Sale of plant assets	8,000	
Sale of held-for-collection investments	34,000	
Purchase of plant assets	(180,000)**	
Net cash used by investing activities		(138,000)

EXERCISE 23-15 (Continued)

Cash flows from financing activities		
Issuance of bonds payable	75,000	
Payment of dividends	(10,000)	
Net cash provided by financing activities..............		65,000
Net increase in cash		5,000
Cash balance, January 1, 2010		10,000
Cash balance, December 31, 2010		$15,000

*Net income $59,000 – $9,000 – $4,000 = $46,000

**Supporting computation
(purchase of plant assets)

Plant assets, December 31, 2009	$215,000
Less: Plant assets sold	60,000
	155,000
Plant assets, December 31, 2010	335,000
Plant assets purchased during 2010	$180,000

EXERCISE 23-16 (30–40 minutes)

(a) Computation of net cash provided by operating activities:

Net income ($8,000 + $9,000) – $5,000		$12,000
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation expense....................................	$17,000*	
Loss on sale of equipment ($6,000 – $3,000)...	3,000	
Increase in accounts receivable ($45,000 – $55,000).....................................	(10,000)	
Increase in merchandise inventory ($45,000 – $65,000).....................................	(20,000)	
Decrease in prepaid expenses ($25,000 – $15,000).....................................	10,000	
Increase in accounts payable ($65,000 – $52,000).....................................	13,000	
Decrease in accrued expenses..................... ($15,000 – $18,000).....................................	(3,000)	10,000
Net cash provided by operating activities		$22,000

*$18,000 – [$8,000 – ($13,000 – $6,000)]

EXERCISE 23-16 (Continued)

(b) Computation of net cash provided (used) by investing activities:

Sale of equipment	$ 3,000
Purchase of equipment [$90,000 – ($75,000 – $13,000)]	(28,000)
Net cash used by investing activities	$(25,000)

(c) Computation of net cash provided (used) by financing activities:

Cash dividends paid	$ (9,000)
Payment of notes payable	(23,000)
Issuance of bonds payable	30,000
Net cash used by financing activities	$ (2,000)

EXERCISE 23-17 (30–40 minutes)

(a)

OCHOA INC.
Statement of Cash Flows
For the Year Ended December 31, 2010

Cash flows from operating activities		
Net income		$30,250
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation expense	$13,500	
Gain on sale of investment	(2,000)	11,500
Net cash provided by operating activities		41,750
Cash flows from investing activities		
Purchase of land	(11,000)	
Sale of non-trading equity investments	12,875	
Net cash provided by investing activities		1,875
Cash flows from financing activities		
Payment of dividends	(9,375)	
Retirement of bonds payable	(20,000)	
Issuance of ordinary shares	10,000	
Net cash used by financing activities		(19,375)

EXERCISE 23-17 (Continued)

Net increase in cash..	24,250
Cash, January 1, 2010	8,500
Cash, December 31, 2010	$32,750

Non-cash investing and financing activities*

Issuance of bonds for land....................................	$22,500

*This information is presented in the notes to the financial statements.

(b)

OCHOA INC.
Statement of Financial Position
December 31, 2010

Assets		Equities	
Investments	$ 9,125[a]	Share capital—ordinary	$ 85,000
Land	73,500*	Retained earnings	45,375**
Plant assets (net)	54,000	Long-term notes payable	25,500
Current assets other than cash	29,000	Bonds payable	27,500***
Cash	32,750	Current liabilities	15,000
	$198,375		$198,375

[a]$20,000 – ($12,875 – $ 2,000)
*$40,000 + $11,000 + $22,500
**$24,500 + $30,250 – $ 9,375
***$25,000 – $20,000 + $22,500

EXERCISE 23-18 (25–30 minutes)

POPOVICH COMPANY
Statement of Cash Flows (partial)
For the Year Ended December 31, 2010

Cash flows from operating activities		
Net income		€ 50,000
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation expense....................................	€16,800	
Loss on sale of equipment............................	5,800	22,600
Net cash provided by operating activities............		72,600

EXERCISE 23-18 (Continued)

Cash flows from investing activities		
Purchase of machinery	(62,000)	
Sale of machinery		
[(€66,000 – €25,200) – €5,800]	35,000	
Major repairs on machinery	(21,000)	
Cost of machinery constructed	(48,000)	
Net cash used by investing activities		(96,000)
Cash flows from financing activities		
Payment of cash dividends		(15,000)
Decrease in cash		(38,400)
Cash, January 1, 2010		xxx
Cash, December 31, 2010		€ xxx

EXERCISE 23-19 (20–25 minutes)

Retained Earnings	15,000	
Financing—Cash Dividends		15,000
Operating—Net Income	50,000	
Retained Earnings		50,000
Operating—Depreciation Expense	16,800	
Accumulated Depreciation—Machinery		16,800
Machinery	131,000	
Investing—Major Repairs to Machinery		21,000
Investing—Purchase of Machinery		62,000
Investing—Construction of Machinery		48,000
Operating—Loss on Sale of Equipment	5,800	
Accumulated Depreciation—Machinery	25,200	
Investing—Sale of Machinery	35,000	
Machinery		66,000

EXERCISE 23-20 (20–25 minutes)

1.	Bonds Payable	300,000	
	Share Capital—Ordinary		300,000
	(Non-cash financing activity)		
2.	Operating—Net income	360,000	
	Retained Earnings		360,000
3.	Operating—Depreciation Expense	90,000	
	Accumulated Depreciation—Building...........		90,000
4.	Accumulated Depreciation—Office Equipment.....	30,000	
	Office Equipment	5,000	
	Operating—Gain on Disposal of Plant Assets...		1,000
	Investing—Purchase of Office Equipment ...		34,000
5.	Retained Earnings..	123,000	
	Cash Dividend Payable		123,000

EXERCISE 23-21 (45–55 minutes)

LOWENSTEIN CORPORATION
Worksheet for Preparation of Statement of Cash Flows
For the Year Ended December 31, 2010

Debits	Balance at 12/31/09		2010 Reconciling Items Debit		2010 Reconciling Items Credit	Balance at 12/31/10
Cash	$ 24,000			(17)	$ 7,500	$ 16,500
Equity investments	19,000	(2)	$ 6,000			25,000
Accounts receivable	45,000			(3)	2,000	43,000
Prepaid expenses	2,500	(4)	1,700			4,200
Inventories	57,000	(5)	24,500			81,500
Land	50,000					50,000
Buildings	78,500	(10)	46,500			125,000
Equipment	46,000	(11)	7,000			53,000
Delivery equipment	39,000					39,000
Patents		(12)	15,000			15,000
Total debits	$361,000					$452,200
Credits						
Accounts payable	$ 16,000			(6)	$10,000	$ 26,000
Short-term notes payable (trade)	6,000	(7)	$ 2,000			4,000
Accrued payables	4,600	(8)	1,600			3,000
Allowance for doubtful accounts	2,000	(3)	200			1,800
Accum. depr.—bldg.	23,000			(13)	7,000	30,000
Accum. depr.—equip.	15,500			(13)	3,500	19,000
Accum. depr.—del. equip.	20,500			(13)	1,500	22,000
Mortgage payable	53,400			(14)	19,600	73,000
Bonds payable	62,500	(16)	12,500			50,000
Share capital—ordinary	102,000			(15)	38,000	140,000
Share premium—ordinary	4,000			(15)	6,000	10,000
Retained earnings	51,500	(9)	10,000	(1)	31,900	73,400
Total credits	$361,000					$452,200

EXERCISE 23-21 (Continued)

Statement of Cash Flows Effects

Operating activities				
Net income	(1)	31,900		
Depreciation	(13)	12,000		
Dec. in accounts receivable (net)	(3)	1,800		
Inc. in prepaid expenses			(4)	1,700
Inc. in inventories			(5)	24,500
Inc. in accounts payable	(6)	10,000		
Dec. in notes payable			(7)	2,000
Dec. in accrued payables			(8)	1,600
Investing activities				
Purchase of non-trading equity investments			(2)	6,000
Purchase of building			(10)	46,500
Purchase of equipment			(11)	7,000
Purchase of patents			(12)	15,000
Financing activities				
Payment of cash dividends			(9)	10,000
Issuance of mortgage payable	(14)	19,600		
Sale of ordinary shares	(15)	44,000		
Retirement of bonds			(16)	12,500
Totals		246,300		253,800
Decrease in cash	(17)	7,500		
Totals		$253,800		$253,800

TIME AND PURPOSE OF PROBLEMS

Problem 23-1 (Time 40–45 minutes)
Purpose—to develop an understanding of the procedures involved in the preparation of a statement of cash flows. The student is required to prepare the statement using the indirect method.

Problem 23-2 (Time 50–60 minutes)
Purpose—to develop an understanding of the procedures involved in the preparation of a statement of cash flows, including a schedule of non-cash investing and financing activities. The student is required to prepare the statement using the indirect method.

Problem 23-3 (Time 50–60 minutes)
Purpose—to develop an understanding of the procedures involved in the preparation of a statement of cash flows. The student is required to prepare the statement using the direct method.

Problem 23-4 (Time 45–60 minutes)
Purpose—to develop an understanding of the procedures involved in the preparation of a statement of cash flows. The student is required to prepare the statement using the direct method, including a reconciliation schedule.

Problem 23-5 (Time 40–50 minutes)
Purpose—to develop an understanding of the procedures involved in the preparation of a statement of cash flows. The student is required to prepare the statement using the indirect method. The student also must calculate the net cash flow from operating activities using the direct method.

Problem 23-6 (Time 30–40 minutes)
Purpose—Using comparative financial statement data, the student is required to prepare the statement of cash flows, using the direct method. The student must also prepare the operating activities section of the statement of cash flows using the indirect method.

Problem 23-7 (Time 30–40 minutes)
Purpose—to develop an understanding of both the direct and indirect method. The student is first asked to compute net cash provided by operating activities under the direct method. In addition a statement of cash flows using the indirect method must be computed.

Problem 23-8 (Time 30–40 minutes)
Purpose—to develop an understanding of the indirect method. In the second part, the student is asked to determine how operating, investing and financing sections of the statement of cash flows will change under various situations.

SOLUTIONS TO PROBLEMS

PROBLEM 23-1

SULLIVAN CORP.
Statement of Cash Flows
For the Year Ended December 31, 2010

Cash flows from operating activities		
Net income		$370,000
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation	$147,000 (a)	
Gain on sale of equipment	(2,000) (b)	
Equity in earnings of Myers Co.	(35,000) (c)	
Decrease in accounts receivable	40,000	
Increase in inventories	(135,000)	
Increase in accounts payable	60,000	
Decrease in income taxes payable	(20,000)	55,000
Net cash provided by operating activities		425,000
Cash flows from investing activities:		
Proceeds from sale of equipment	40,000	
Loan to TLC Co.	(300,000)	
Principal payment of loan receivable	50,000	
Net cash used by investing activities		(210,000)
Cash flows from financing activities:		
Dividends paid	(100,000)	
Net cash used by financing activities		(100,000)
Net increase in cash		115,000
Cash, January 1, 2010		700,000
Cash, December 31, 2010		$815,000

PROBLEM 23-1 (Continued)

Separate schedule presented in the notes:

Non-cash investing and financing activities:

Issuance of lease liability for finance lease		$400,000*

Explanation of Amounts

(a) Depreciation

Net increase in accumulated depreciation for the year ended December 31, 2010		$125,000
Accumulated depreciation on equipment sold:		
Cost..	$60,000	
Carrying value..	38,000	22,000
Depreciation for 2010		$147,000

(b) Gain on sale of equipment

Proceeds	$ 40,000
Carrying value..	(38,000)
Gain	$ 2,000

(c) Equity in earnings of Myers Co.

Myers's net income for 2010	$140,000
Sullivan's ownership....................................	X 25%
Undistributed earnings of Myers Co....	$ 35,000

PROBLEM 23-2

HINCKLEY CORPORATION
Statement of Cash Flows
For the Year Ended December 31, 2010

Cash flows from operating activities		
Net income		$14,750 (a)
Adjustments to reconcile net income to net cash provided by operating activities:		
Loss on sale of equipment	$ 4,100 (b)	
Gain from flood damage	(8,250)*	
Depreciation expense	1,900 (c)	
Patent amortization	1,250	
Gain on sale of investments	(1,700)	
Increase in accounts receivable (net)	(3,750)**	
Increase in inventory	(3,000)	
Increase in accounts payable	2,000	(7,450)
Net cash provided by operating activities		7,300
Cash flows from investing activities		
Sale of investments	4,700	
Sale of equipment	2,500	
Purchase of equipment	(20,000) (d)	
Proceeds from flood damage to building	32,000	
Net cash provided by investing activities		19,200
Cash flows from financing activities		
Payment of dividends	(5,000)	
Payment of short-term note payable	(1,000)	
Net cash used by financing activities		(6,000)
Increase in cash		20,500
Cash, January 1, 2010		13,000
Cash, December 31, 2010		$33,500

*[$32,000 – ($29,750 – $6,000)]
**($12,250 – $3,000) – ($10,000 – $4,500)

PROBLEM 23-2 (Continued)

Supplemental disclosures of cash flow information:

Cash paid during the year for:		
Interest	**$2,000**	
Income taxes:	**$6,500**	

Non-cash investing and financing activities*	
Retired note payable by issuing ordinary shares	**$10,000**
Purchased equipment by issuing note payable	**16,000**
	$26,000

***Presented in the notes to the financial statements.**

Supporting Computations:

(a)	**Ending retained earnings**	**$20,750**
	Beginning retained earnings	**(6,000)**
	Net income	**$14,750**
(b)	**Cost**	**$11,000**
	Accumulated depreciation (40% X $11,000)	**(4,400)**
	Book value	**$ 6,600**
	Proceeds from sale	**(2,500)**
	Loss on sale	**$ 4,100**
(c)	**Accumulated depreciation on equipment sold**	**$ 4,400**
	Decrease in accumulated depreciation	**(2,500)**
	Depreciation expense	**$ 1,900**
(d)	**Beginning equipment balance**	**$20,000**
	Cost of equipment sold	**(11,000)**
	Remaining balance	**9,000**
	Purchase of equipment with note	**16,000**
	Adjusted balance	**25,000**
	Ending equipment balance	**(45,000)**
	Purchased with cash	**$20,000**

PROBLEM 23-3

MORTONSON COMPANY
Statement of Cash Flows
For the Year Ended December 31, 2010
($000 Omitted)

Cash flows from operating activities		
Cash receipts from customers		$3,520 (a)
Cash payments:		
Payments for merchandise	$1,270 (b)	
Salaries and benefits	725	
Heat, light, and power	75	
Property taxes	19	
Interest	30	
Miscellaneous	10	
Income taxes	808 (c)	2,937
Net cash provided by operating activities		583
Cash flows from investing activities		
Sale of non-trading equity investments	40	
Purchase of buildings and equipment	(310)	
Purchase of land	(80)	
Net cash used by investing activities		(350)
Increase in cash		233
Cash, January 1, 2010		100
Cash, December 31, 2010		$ 333

(a)	Sales	$3,800
	Deduct ending accounts receivable	780
		3,020
	Add beginning accounts receivable	500
	Cash receipts (collections from customers)	$3,520

(b)

Cost of goods sold	**$1,200**
Add ending inventory..................................	**720**
Goods available for sale	**1,920**
Deduct beginning inventory	**560**
Purchases	**1,360**
Deduct ending accounts payable	**420**
	940
Add beginning accounts payable	**330**
Cash purchases (payments for merchandise)	**$1,270**

(c)

Income taxes...	**$818**
Deduct ending income taxes payable	**40**
	778
Add beginning income taxes payable	**30**
Income taxes paid	**$ 808**

PROBLEM 23-4

MICHAELS COMPANY
Statement of Cash Flows
For the Year Ended December 31, 2010
(Direct Method)

Cash flows from operating activities		
Cash receipts:		
Cash received from customers	$1,152,450[a]	
Dividends received	2,400	$1,154,850
Cash payments:		
Cash paid to suppliers	765,000[b]	
Cash paid for operating expenses	226,350[c]	
Taxes paid	38,400[d]	
Interest paid	57,300[e]	1,087,050
Net cash provided by operating activities		67,800
Cash flows from investing activities		
Sale of short-term investments ($8,000 + $4,000)	12,000	
Sale of land ($175,000 – $125,000) + $8,000	58,000	
Purchase of equipment	(125,000)	
Net cash used by investing activities		(55,000)
Cash flows from financing activities		
Proceeds from issuance of ordinary shares	27,500	
Principal payment on long-term debt	(10,000)	
Dividends paid	(24,300)	
Net cash used by financing activities		(6,800)
Net increase in cash		6,000
Cash, January 1, 2010		4,000
Cash, December 31, 2010		$ 10,000

[a]Sales Revenue	$1,160,000
Increase in Accounts Receivable	(7,550)
Cash received from customers	$1,152,450

[b]Cost of Goods Sold	$ 748,000
Increase in Inventory	7,000
Decrease in Accounts Payable	10,000
Cash paid to suppliers	$ 765,000

PROBLEM 23-4 (Continued)

[c]Operating Expenses	$276,400
Depreciation/Amortization Expense	(40,500)
Decrease in Prepaid Rent	(9,000)
Increase in Prepaid Insurance	1,200
Increase in Office Supplies	250
Increase in Wages Payable	(2,000)
Cash paid for Operating Expenses	$226,350

[d]Income Tax Expense	$39,400
Increase in Income Taxes Payable	(1,000)
Taxes paid	$38,400

[e]Interest Expense	$51,750
Decrease in Bond Premium	5,550
Interest paid	$57,300

PROBLEM 23-5

(a) **Net Cash Flow from Operating Activities**

Cash received from customers		$524,850[1]
Cash payments:		
Cash payments to suppliers	$375,750[2]	
Cash payments for operating expenses	105,675[3]	481,425
Net cash provided by operating activities		$ 43,425

[1]$540,000 – $10,500 – $4,650* = $524,850

[2]$380,000 + $6,000 – $10,250 = $375,750

[3]$120,450 – $8,625 – $750** – $5,400 = $105,675

*Writeoff of accounts receivable.
($1,500 + $5,400 – $2,250)
**Increase in accrued payables

(b) **MARCUS INC.**
Statement of Cash Flows
For the Year Ended December 31, 2010

Cash flows from operating activities		
Net income		$42,500
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation expense	$ 8,625	
Gain on sale of investments....................	(3,750)	
Loss on sale of machinery	800	
Increase in accounts receivable (net).....	(9,750)*	
Increase in inventory...............................	(6,000)	
Increase in accounts payable..................	10,250	
Increase in accrued payables..................	750	925
Net cash provided by operating activities.....		43,425

PROBLEM 23-5 (Continued)

Cash flows from investing activities		
Purchase of equity investments		
$22,250 – ($38,500 – $25,000)	**(8,750)**	
Purchase of machinery		
$30,000 – ($18,750 – $3,750)	**(15,000)**	
Addition to buildings	**(11,250)**	
Sale of investments	**28,750**	
Sale of machinery	**2,200**	
Net cash used by investing activities		**(4,050)**
Cash flows from financing activities		
Reduction in long-term note payable	**(10,000)**	
Cash dividends paid	**(21,125)**	
Net cash used by financing activities		**(31,125)**
Net increase in cash		**8,250**
Cash, January 1, 2010		**33,750**
Cash, December 31, 2010		**$42,000**

***($70,500 – $2,250) – ($60,000 – $1,500)**

PROBLEM 23-6

(a) Both the direct method and the indirect method for reporting cash flows from operating activities are acceptable in preparing a statement of cash flows according to IFRS; however, the IASB encourages the use of the direct method. Under the direct method, the statement of cash flows reports the major classes of cash receipts and cash disbursements, and discloses more information; this may be the statement's principal advantage. Under the indirect method, net income on the accrual basis is adjusted to the cash basis by adding or deducting non-cash items included in net income, thereby providing a useful link between the statement of cash flows and the income statement and statement of financial position.

(b) The Statement of Cash Flows for Chapman Company, for the year ended May 31, 2010, using the direct method, is presented below.

CHAPMAN COMPANY
Statement of Cash Flows
For the Year Ended May 31, 2010

Cash flows from operating activities		
Cash received from customers		$1,238,250
Cash payments:		
To suppliers	$684,000	
To employees	276,850	
For other expenses	10,150	
For interest	73,000	
For income taxes	43,000	1,087,000
Net cash provided by operating activities		151,250
Cash flows from investing activities		
Purchase of plant assets		(28,000)
Cash flows from financing activities		
Cash received from ordinary shares issue	$ 20,000	
Cash paid		
For dividends	(105,000)	
To retire bonds payable	(30,000)	
Net cash used by financing activities		(115,000)
Net increase in cash		8,250
Cash, June 1, 2009		20,000
Cash, May 31, 2010		$ 28,250

PROBLEM 23-6 (Continued)

Note 1: **Non-cash investing and financing activities:**
Issuance of ordinary shares for plant assets $70,000.

Supporting Calculations:

Collections from customers	
Sales	$1,255,250
Less: Increase in accounts receivable	17,000
Cash collected from customers	$1,238,250
Cash paid to suppliers	
Cost of merchandise sold	$ 722,000
Less: Decrease in merchandise inventory	30,000
Increase in accounts payable	8,000
Cash paid to suppliers	$ 684,000
Cash paid to employees	
Salary expense	$ 252,100
Add: Decrease in salaries payable	24,750
Cash paid to employees	$ 276,850
Cash paid for other expenses	
Other expenses	$ 8,150
Add: Increase in prepaid expenses	2,000
Cash paid for other expenses	$ 10,150
Cash paid for interest	
Interest expense	$ 75,000
Less: Increase in interest payable	2,000
Cash paid for interest	$ 73,000
Cash paid for income taxes:	
Income tax expense (given)	$ 43,000

(c) The calculation of the cash flow from operating activities for Chapman Company, for the year ended May 31, 2010, using the indirect method, is presented below.

CHAPMAN COMPANY
Statement of Cash Flows
For the Year Ended May 31, 2010

Cash flows from operating activities		
Net income		$130,000
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation expense	$25,000	
Decrease in merchandise inventory	30,000	
Increase in accounts payable	8,000	
Increase in interest payable	2,000	
Increase in accounts receivable	(17,000)	
Increase in prepaid expenses	(2,000)	
Decrease in salaries payable	(24,750)	21,250
Net cash provided by operating activities		$151,250

PROBLEM 23-7

(a) Net Cash Provided by Operating Activities

Cash receipts from customers		**$925,000 (1)**
Cash payments:		
Cash payments to suppliers	**$608,000 (2)**	
Cash payments for operating expenses	**226,000 (3)**	
Cash payments for income taxes	**43,000 (4)**	**877,000**
Net cash provided by operating activities		**$ 48,000**

(1) (Sales) less (Increase in Accounts Receivables)
$950,000 – $25,000 = $925,000

(2) (Cost of Goods Sold) plus (Increase in Inventory) less (Increase in Accounts Payable)
$600,000 + $14,000 – $6,000 = $608,000

(3) (Operating Expenses) less (Depreciation Expense) less (Bad Debt Expense)
$250,000 – $22,000* – $2,000 = $226,000

(4) (Income Taxes) less (Increase in Income Taxes Payable)
$45,000 – $2,000 = $43,000

***$21,000 – [$14,000 – ($10,000 X .60)]**	**=**	**$13,000**	**Equipment depreciation**
$37,000 – $28,000	**=**	**9,000**	**Building depreciation**
		$22,000	

PROBLEM 23-7 (Continued)

(b)

SHARPE COMPANY
Statement of Cash Flows
For the Year Ended December 31, 2010

Cash flows from operating activities		
Net income		$67,000
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation expense	$22,000	
Gain on sale of equity investments	(15,000)	
Loss on sale of equipment	3,000	
Increase in accounts receivable (net)	(23,000)	
Increase in inventory	(14,000)	
Increase in accounts payable	6,000	
Increase in income taxes payable	2,000	(19,000)
Net cash provided by operating activities		48,000
Cash flows from investing activities		
Purchase of equity investments [$55,000 – ($85,000 – $35,000)]	(5,000)	
Purchase of equipment [$70,000 – ($48,000 – $10,000)]	(32,000)	
Sale of equity investments ($35,000 + $15,000)	50,000	
Sale of equipment [$10,000 – ($10,000 X 60%)] – $3,000	1,000	
Net cash provided by investing activities		14,000
Cash flows from financing activities		
Payment of long-term notes payable	(8,000)	
Cash dividends paid [($95,000 + $67,000) – $92,000]	(70,000)	
Issuance of ordinary shares	35,000*	
Net cash used by financing activities		(43,000)
Net increase in cash		19,000
Cash, January 1, 2010		51,000
Cash, December 31, 2010		$70,000

***$310,000 – $260,000 = $50,000; $50,000 – ($40,000 – $25,000) = $35,000**

Non-cash investing and financing activities*

Issuance of ordinary shares for land	$15,000

***Presented in the notes to the financial statements.**

PROBLEM 23-8

(a)

DINGEL CORPORATION
Statement of Cash Flows
For the Year Ended December 31, 2010

Cash flows from operating activities		
Net income		$15,750[(a)]
Adjustments to reconcile net income to net cash provided by operating activities:		
Loss on sale of equipment	$ 5,200[(b)]	
Gain from flood damage	(13,250)*	
Depreciation expense	800[(c)]	
Copyright amortization	250	
Gain on sale of equity investment	(1,500)	
Increase in accounts receivable (net)	(3,750)	
Increase in inventory	(2,000)	
Increase in accounts payable	1,000	(13,250)
Net cash flow provided by operating activities		2,500
Cash flows from investing activities		
Sale of equity investments	4,500	
Sale of equipment	2,500	
Purchase of equipment (cash)	(15,000)	
Proceeds from flood damage to building	37,000	
Net cash provided by investing activities		29,000
Cash flows from financing activities		
Payment of dividends	(5,000)	
Payment of short-term note payable	(1,000)	
Net cash used by financing activities		(6,000)
Increase in cash		25,500
Cash, January 1, 2010		13,000
Cash, December 31, 2010		$38,500

*[($33,000 + $4,000) – ($29,750 – $6,000)]

<u>Supplemental disclosures of cash flow information</u>:

Cash paid during the year for:

Interest	$2,000
Income taxes	$5,000

Non-cash investing and financing activities:*

Retired note payable by issuing ordinary shares	$ 5,000
Purchased equipment by issuing note payable	16,000
	$21,000

*Presented in the notes to the financial statements.

Supporting Computations:

(a)

Ending retained earnings	$20,750
Beginning retained earnings	(5,000)
Net income	$15,750

(b)

Cost	$11,000
Accumulated depreciation (30% X $11,000)	(3,300)
Book value	$ 7,700
Proceeds from sale	(2,500)
Loss on sale	$ 5,200

(c)

Accumulated depreciation on equipment sold	$ 3,300
Decrease in accumulated depreciation	(2,500)
Depreciation expense	$ 800

(b) (1) For a severely financially troubled firm:

Operating: Probably a small cash inflow or a cash outflow.
Investing: Probably a cash inflow as assets are sold to provide needed cash.
Financing: Probably a cash inflow from debt financing (borrowing funds) as a source of cash at high interest cost.

(2) For a recently formed firm which is experiencing rapid growth:

Operating: Probably a cash inflow.
Investing: Probably a large cash outflow as the firm expands.
Financing: Probably a large cash inflow to finance expansion.

TIME AND PURPOSE OF CONCEPTS FOR ANALYSIS

CA 23-1 (Time 30–35 minutes)
Purpose—to develop an understanding of the proper composition and presentation of the statement of cash flows. The student is required to analyze a statement of sources and uses of cash and indicate the proper treatment of various transactions.

CA 23-2 (Time 30–35 minutes)
Purpose—to illustrate the proper form of the statement of cash flows. The student is required to prepare the statement using the indirect method, and to discuss the rationale behind the statement.

CA 23-3 (Time 30–35 minutes)
Purpose—to help a student identify whether a transaction creates a cash inflow or a cash outflow. The student is required to indicate whether a cash inflow or a cash outflow results from the transaction. The student must also discuss the proper disclosure of the transaction.

CA 23-4 (Time 20–30 minutes)
Purpose—to help the student identify the sections of the statement of cash flows. The student is required to indicate whether a transaction belongs in the investing, financing, or operating section of the statement.

CA 23-5 (Time 30–40 minutes)
Purpose—to identify and explain reasons and purposes for preparing a statement of cash flows, to identify the categories of activities reported in the statement of cash flows, to identify and describe the two methods of reporting cash flows from operations, and to describe the presentation of non-cash transactions.

CA 23-6 (Time 20–30 minutes)
Purpose—provides the student the opportunity to examine the effects of a securitization on the statement of cash flows, including ethical dimensions.

SOLUTIONS TO CONCEPTS FOR ANALYSIS

CA 23-1

(a) The main purpose of the statement of cash flows is to show the change in cash from one period to the next. Another objective of a statement of the type shown is to summarize the financing and investing activities of the entity, including the extent to which the company has generated cash or near cash assets from operations during the period. Another objective is to complete the disclosure of changes in financial position during the period. The information shown in such a statement is useful to a variety of users of financial statements in making economic decisions regarding the company.

(b) The following are weaknesses in form and format of Maloney Corporation's Statement of Sources and uses of Cash:

1. The title of the statement should be Statement of Cash Flows.
2. The statement should add back to (or deduct from) net income certain items that did not use (or provide) cash during the period. The resulting total should be described as net cash provided by operating activities.

   The only apparent adjustments in this situation are the amounts to be added back to net income for the depreciation and depletion expense, for any wage or salary expense related to the employee share option plans, and for changes in current assets and liabilities.

3. The format used should separate the cash flows into investing, financing, and operating activities. Non-cash investing and financing activities, if significant, should be shown in a note to the financial statements.

4. Individual items should not be grouped together, as was the case for the $14,000 item.

(c) 1. (i) The $25,000 option plan wage and salary expense should be included in the statement as an amount added back to net income, an expense not requiring the outlay of cash during the period.
   (ii) Since the statement balances and no reference is made to the $25,000 payroll expense, it appears the expense was not recorded or that there is an offsetting error elsewhere in the statement.

2. The expenditures for plant asset acquisitions should not be reported net of the proceeds from plant asset retirements. Both the outlay for acquisitions and the proceeds from retirements should be reported as investing activities. The details provide useful information about changes in financial position during the period.

3. Share dividends or share splits need not be disclosed in the statement because these transactions do not significantly affect financial position.

4. The issuance of the 16,000 ordinary shares in exchange for the preference shares should be shown as a non-cash financing activity. Since these transactions significantly change the corporation's capital structure, they should be disclosed.

5. The presentation of the combined total of depreciation and depletion is probably acceptable. The general rule is that related items should be shown separately in proximity when the result contributes information useful to the user of the statement, but immaterial items may be combined. In this situation, it is likely that no additional relevant information would be added by showing depletion as a separate item. The total should be added back to net income in the computation of the net cash flow from operating activities.

CA 23-1 (Continued)

6. The details of changes in long-term debt should be shown separately. Payments should not be netted against increases in long-term borrowings. The long-term borrowing of $620,000 should be shown as cash provided and the retirement of $441,000 of debt should be shown as use of cash from financing activities.

CA 23-2

(a) From the information given, it appears that from an operating standpoint Pacific Clothing Store did not have a superb first year, having suffered an €11,000 net loss. Lenny is correct; the statement of cash flows is not prepared in correct form. The sources and uses format is not an acceptable form. The correct form classifies cash flows from three activities—operating, investing, and financing; and it also presents significant non-cash investing and financing activities in a separate schedule. Lenny is wrong, however, about the actual increase in cash—€109,000 is the correct increase in cash.

(b)

PACIFIC CLOTHING STORE
Statement of Cash Flows
For the Year Ended January 31, 2010

Cash flows from operating activities		
Net loss		€ (11,000)*
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation expense	€ 80,000	
Gain from sale of investment	(25,000)	55,000
Net cash provided by operating activities		44,000
Cash flows from investing activities		
Sale of debt investment	120,000	
Purchase of fixtures and equipment	(330,000)	
Purchase of investment	(95,000)	
Net cash used by investing activities		(305,000)
Cash flows from financing activities		
Sale of ordinary shares	380,000	
Purchase of treasury shares	(10,000)	
Net cash provided by financing activities		370,000
Net increase in cash		€109,000
Supplemental disclosure of cash flow information:		
Cash paid for interest		€ 3,000

Significant non-cash investing and financing activities (presented in the notes).

Issuance of note for truck		€ 30,000

***Computation of net income (loss)**

Sales of merchandise		€382,000
Interest revenue		8,000
Gain on sale of investment (€120,000 – €95,000)		25,000
Total revenues		415,000
Merchandise purchases	€253,000	
Operating expenses (€170,000 – €80,000)	90,000	
Depreciation	80,000	
Interest expense	3,000	
Total expenses		(426,000)
Net loss		€ (11,000)

CA 23-3

1. The earnings are treated as a source of cash and should be reported as part of the net cash provided by operating activities in the statement of cash flows. There should be $810,000 of income reported in operating activities.

2. The $315,000 depreciation expense is neither a source nor a use of cash. Because depreciation is an expense, it was deducted in the computation of net income. Accordingly, the $315,000 must be added back to net income in the operating activities section because it was deducted in determining earnings, but it was not a use of cash.

3. The writeoff of uncollectible accounts receivable against the allowance account has no effect on cash because the net accounts receivable remain unchanged. An adjustment to income is only necessary if the net receivable amount increases or decreases. Because the net receivable amount is the same before and after the writeoff, an adjustment to income would not be made.

   The $51,000 of bad debt expense does not affect cash would be added back to income because it affects the amount of net accounts receivable. The recording of bad debt expense reduces the net receivable because the allowance account increases. Although bad debt expense is not usually treated as a separate item to be added back to income from operations, it is accounted for by analyzing the accounts receivable at the net amount and then making the necessary adjustment to income based on the change in the net amount of receivables.

4. The $6,000 gain realized on the sale of the machine is deducted from net income to arrive at net cash provided by operating activities. The proceeds of $36,000 ($30,000 + $6,000) are shown as a cash inflow from investing activities.

5. In this case, no cash flow resulted from the lightning damage. The net loss (a non-cash event) must be added back to net income (under the indirect method) as one of the adjustments to reconcile net income to net cash flow provided by operating activities.

CA 23-3 (Continued)

6. The $75,000 use of cash should be reported as a cash outflow from investing activities. The $200,000 issuance of ordinary shares and the $425,000 issuance of the mortgage note, neither of which affects cash, should be reported as non-cash financing and investing activities (reported in the notes).

7. This conversion is not a source or use of cash, but it is a significant non-cash financing activity and should be reported in a note.

CA 23-4

	Where to Present	How to Present
1.	Investing and operating	Cash provided by sale of fixed assets, R4,750 as an investing activity. In addition, the loss of R2,250 [(R20,000 x $3^1/_2$) ÷ 10] – R4,750 on the sale would be added back to net income.
2.	Operating	The impairment reduced earnings from operations but did not use cash. The amount of R15,000 is added back to net income.
3.	Financing	Cash provided by the issuance of ordinary shares for R16,000.
4.	Operating	The net loss of R2,100 is presented as loss from operations, and depreciation of R2,000 and amortization of R400 are added back to the loss from operations. Net cash provided by operating activities is R300.
5.	Not reported in statement.	
6.	Investing and operating	Cash provided by the sale of the investment, R10,600 as an investing activity. The loss of R1,400 is added back to net income.
7.	Financing and operating	The retirement is reported as cash used by financing activities of R24,240. Additionally, the gain (of R1,760 = R26,000 – R24,240) is deducted from net income in the operating activities section.

CA 23-5

(a) The primary purpose of the statement of cash flows is to provide information concerning the cash receipts and cash payments of a company during a period. The information contained in the statement of cash flows, together with related disclosures in other financial statements, may help investors and creditors
   1. assess the company's ability to generate future net cash inflows.
   2. assess the company's ability to meet its obligations, e.g., pay dividends and meet needs for external financing.
   3. analyze the differences between net income and the associated cash receipts and payments.

(b) The statement of cash flows classifies cash inflows and outflows as those resulting from operating activities, investing activities, and financing activities.

Cash inflows from operating activities include receipts from the sale of goods and services, receipts from returns on loans and equity securities (interest and dividends), and all other receipts that do not arise from transactions defined as financing and investing activities. Cash outflows for operating activities include payments to buy goods for manufacture and resale, payments to employees for services, tax payments, payments to creditors for interest, and all other payments that do not arise from transactions defined as financing and investing activities.

CA 23-5 (Continued)

Cash inflows from investing activities include receipts from collections or sales of debt instruments of other companies, from the sale of the investments in those shares, and from sales of various productive fixed assets. Cash outflows for investing activities include payments for shares of other companies, purchase of productive fixed assets, and debt instruments of other companies.

Cash inflows from financing activities include proceeds from the company issuing its own share or its own debt. Cash outflows for financing activities include payments to shareholders and debtholders for dividends or retirement of its own shares and bonds (i.e., treasury shares).

(c) Cash flows from operating activities may be presented using the direct method or the indirect method. Under the direct method, the major classes of operating cash receipts and cash payments are shown separately. The indirect method involves adjusting net income to net cash flow from operating activities by removing the effects of deferrals of past cash receipts and payments, accruals of future cash receipts and payments, and non-cash items from net income.

(d) Non-cash investing and financing transactions are to be reported in the related disclosures, either in a narrative form or summarized within a separate supplementary schedule. Examples of non-cash transactions are the conversion of debt to equity, acquiring assets by assuming directly related liabilities, and exchanging non-cash assets or liabilities for other non-cash assets or liabilities. For transactions that are part cash and part non-cash, only the cash portion should be reported in the statement of cash flows.

CA 23-6

(a) It is true that selling current assets, such as receivables and notes to factors, will generate cash flows for the company, but this practice does not cure the systemic cash problems for the organization. In short, it may be a bad business practice to liquidate assets, incurring expenses and losses, in order to “window dress” the cash flow statement.

The ethical implications are that Brockman creates a short-term cash flow at the longer-term expense of the company’s operations and financial position. Barbara’s idea creates the deceiving illusion that the company is successfully generating positive cash flows.

(b) Barbara Brockman should be told that if she executes her plan, the company may not survive. While the factoring of receivables and the liquidation of inventory will indeed generate cash, the actual amount of cash the company receives will be less than the carrying value of the receivables and the raw materials. In addition, the company would still have the future expenditure of replenishing its raw materials inventories, at a cost higher than the sales price.

As chief accountant for Brockman Guitar, it is your responsibility to work with the company’s chief financial officer to devise a coherent strategy for improving the company’s cash flow problems. One strategy may be to downsize the organization by selling excess property, plant, and equipment to repay long-term debt.

FINANCIAL REPORTING PROBLEM

(a) M&S uses the indirect method to compute and report net cash provided by operating activities. The amounts of net cash provided by operating activities for 2007 and 2008 are £1,292.5 million and £1,069.8 million, respectively. The two items most responsible for the decrease in cash provided by operating activities in 2008 are the increase in operating profit and the increase in depreciation and amortization.

(b) The most significant item in the investing activities section is the £958.4 million that M&S spent on "property, plant and equipment." The most significant item in the financing activities section is the £631.7 million that M&S received from issuing medium term notes.

(c) M&S does not report deferred income taxes on its statement of cash flows. It does report income tax expense as an add back to net income in the operating activities section.

(d) Depreciation and amortization is reported in the operating activities section of M&S's statement of cash flows as an add back to net income because it is a non-cash charge in the income statement.

COMPARATIVE ANALYSIS CASE

(a) Both Cadbury and Nestlé use the indirect method of computing and reporting net cash provided by operating activities.

(In millions)	Cadbury	Nestlé
Net cash provided by operating activities	£469	CHF10,763

(b) The most significant investing activities items in 2008:

Cadbury
Purchase of property, plant, and equipment and software — £500 million

Nestlé
Disposal of businesses — CHF10,999 million

The most significant financing activities items in 2008:

Cadbury
Proceeds of new borrowings — £4,382 million

Nestlé
Purchase of treasury shares — CHF8,696 million

(c) Cadbury has decreased net cash provided by operating activities from 2007 to 2008 by £343 million or 42.2%. Nestlé has decreased net cash provided by operating activities by CHF2,676 million or 19.9%. Both companies have favorable trends in the generation of internal funds (profits) from operations.

(d) Both Cadbury and Nestlé report depreciation and amortization in the operating activities section:

Cadbury, £244 million
Nestlé, CHF3,249 million

Depreciation and amortization is reported in the operating activities section because it is a non-cash charge in the income statement.

(e)

		Cadbury	Nestlé
1.	Current cash debt coverage	$\frac{£469}{\frac{(£3{,}388 + £4{,}614)}{2}} = .12:1$	$\frac{CHF10{,}763}{\frac{(CHF33{,}223 + CHF43{,}326)}{2}} = .28:1$
2.	Cash debt coverage	$\frac{£469}{\frac{(£5{,}361 + £7{,}165)}{2}} = .07:1$	$\frac{CHF10{,}763}{\frac{(CHF51{,}299 + CHF60{,}585)}{2}} = .19:1$

(f) **The current cash debt coverage ratio uses cash generated from operations during the period and provides a better representation of liquidity on an average day. Nestlé's ratio of CHF.28 of cash flow from operations for every CHF of current debt was approximately 133% higher (.28 vs. .12) than Cadbury's £.12 of cash flow from operations per pound of current debt and indicates Nestlé was significantly more liquid in 2008 than Cadbury.**

The cash debt coverage ratio shows a company's ability to repay its liabilities from cash generated from operating activities without having to liquidate the assets employed in its operations. Since Nestlé's cash debt coverage ratio was approximately 171% larger (.19 vs. .07) than Cadbury's, its ability to repay liabilities with cash flow from operations was substantially greater than Cadbury's in 2008.

FINANCIAL STATEMENT ANALYSIS CASE

(a) Telefónica uses the direct method to prepare the operating cash flow section of its statement of cash flows. Telefónica reports cash received from customers and cash paid to suppliers and employees, which are only reported under the direct method.

(b) Adjustments that would explain the difference between net income and operating cash flow include non-cash expenses (depreciation and amortization), gains and losses on disposal of non-current assets, and increases (decreases) in current assets and current liabilities. Depreciation (amortization) expense, losses on disposal of non-current assets, and increases (decreases) in current assets (liabilities) would all decrease. Telefónica's net income, but would have no affect on its operating cash flow.

(c) Telefónica reports interest received (paid), taxes paid, and dividends received as operating activities. It shows under investing activities interest paid on cash surpluses, and dividends paid as a financing activity. IFRS allows interest and dividends paid to be classified as either operating or financing, and allows interest and dividends received to be reported as either operating or investing.

INTERNATIONAL REPORTING CASE

VERMONT TEDDY BEAR CO.

(a) **Vermont's statement of cash flows has the same 3 categories (operating, investing, and financing) as an IFRS statement does. IFRS does allow some flexibility regarding the classification of interest and dividends paid and received. However it appears that there are no significant differences between Vermont's statement and IFRS requirements.**

(b) **Even though prior year income exceeded the current year income by $821,432 ($838,955 – $17,523), the current year cash flow from operations exceeded prior year's cash flow from operations by $937,437 ($236,480 – $700,957). This apparent paradox can be explained by evaluating the components of cash from operating activities. Significant contributors to the positive cash flow figure in the current year were (1) the depreciation and amortization add-back of $316,416 versus $181,348 in the prior year, and (2) accounts payable increase of $2,017,059 in the current year versus a decline of $284,567 in the prior year. An increase in accounts payable causes an increase in cash from operations; thus, the majority of the increase in cash is explained by the company's dramatic increase in accounts payable. An investor or creditor would want to investigate this increase to ensure that the company is not delinquent on its payments. However, it should be noted that inventories did increase by $1,599,014.**

(c) **Liquidity: current cash debt coverage ratio (net cash provided by operating activities ÷ average current liabilities).**

$236,480 ÷ (($4,055,465 + $1,995,600) ÷ 2) = .078:1

Solvency: cash debt coverage ratio (net cash provided by operating activities ÷ average total liabilities)

$236,480 ÷ (($4,620,085 + $2,184,386) ÷ 2) = .070:1

Profitability: cash return on sales ratio (net cash provided by operating activities ÷ net sales)

$236,480 ÷ $20,560,566 = .012:1

All of these ratios are very low. This is not surprising, however, for a company like the Vermont Teddy Bear Company that is still in a growth stage. When a company is in growth phase of its main product, it will not typically generate significant cash flow from operations. However, because of the precarious nature of companies in this stage of their lives, the company's cash position should be monitored closely to ensure that it does not slide into a distress financial state due to cash shortages.

ACCOUNTING, ANALYSIS, AND PRINCIPLES

ACCOUNTING

LASKOWSKI COMPANY
Statement of Cash Flows—Indirect Method
For the Year Ended December 31, 2011

Cash flows from operating activities		
Net income		€ 430,000
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation expense	€ 880,000	
Loss on sale of machinery	24,000	
Increase in accounts receivable	(165,000)	
Decrease in inventories	33,000	
Increase in accounts payable	20,000	792,000
Net cash provided by operating activities		1,222,000
Cash flows from investing activities		
Sale of machinery	270,000	
Purchase of machinery	(750,000)	
Net cash used by investing activities		(480,000)
Cash flows from financing activities		
Payment of cash dividends		(200,000)
Net increase in cash		542,000
Cash at beginning of period		130,000
Cash at end of period		€ 672,000

ANALYSIS

Laskowski's free cash flow is:

Net cash provided by operating activities	€1,222,000
Less purchase of machinery	750,000
Less dividends	200,000
Free cash flow	€ 272,000

Laskowski's free cash flow for the current year (€272,000) is less than the amount needed for expansion next year (€500,000). Thus, assuming operations at roughly the same level in future periods, Laskowski's free cash flow will not be sufficient to fund the expansion plan. The company might explore reducing the dividend or securing additional funds for the expansion through a borrowing.

According to IAS 7, "Information about the cash flows of an entity is useful in providing users of financial statements with a basis to assess the ability of the entity to generate cash and cash equivalents and the needs of the entity to utilise those cash flows. The economic decisions that are taken by users require an evaluation of the ability of an entity to generate cash and cash equivalents and the timing and certainty of their generation. The objective of this Standard is to require the provision of information about the historical changes in cash and cash equivalents of an entity by means of a statement of cash flows which classifies cash flows during the period from operating, investing and financing activities."

PROFESSIONAL RESEARCH

(a) According to IAS 7, "Information about the cash flows of an entity is useful in providing users of financial statements with a basis to assess the ability of the entity to generate cash and cash equivalents and the needs of the entity to utilise those cash flows. The economic decisions that are taken by users require an evaluation of the ability of an entity to generate cash and cash equivalents and the timing and certainty of their generation. The objective of this Standard is to require the provision of information about the historical changes in cash and cash equivalents of an entity by means of a statement of cash flows which classifies cash flows during the period from operating, investing and financing activities."

IAS 7 does not mention anything about working capital.

(b) According to paragraph 10, "The statement of cash flows shall report cash flows during the period classified by operating, investing and financing activities." Further, paragraph 11 states "An entity presents its cash flows from operating, investing and financing activities in a manner which is most appropriate to its business. Classification by activity provides information that allows users to assess the impact of those activities on the financial position of the entity and the amount of its cash and cash equivalents. This information may also be used to evaluate the relationships among those activities."

(c) According to paragraph 14, "Cash flows from operating activities are primarily derived from the principal revenue-producing activities of the entity. Therefore, they generally result from the transactions and other events that enter into the determination of profit or loss. Examples of cash flows from operating activities are:

- **(a) cash receipts from the sale of goods and the rendering of services;**
- **(b) cash receipts from royalties, fees, commissions and other revenue;**
- **(c) cash payments to suppliers for goods and services;**
- **(d) cash payments to and on behalf of employees;**

(e) cash receipts and cash payments of an insurance entity for premiums and claims, annuities and other policy benefits;
(f) cash payments or refunds of income taxes unless they can be specifically identified with financing and investing activities; and
(g) cash receipts and payments from contracts held for dealing or trading purposes."

PROFESSIONAL SIMULATION

Financial Statements

ELLWOOD HOUSE, INC.
Statement of Cash Flows
For the Year Ended December 31, 2011

Cash flows from operating activities		
Net income		$42,000
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation expense (a)	$13,550	
Gain on sale of investment (b)	(500)	13,050
Net cash provided by operating activities		$55,050
Cash flows from investing activities		
Purchase of land (c)	(5,500)	
Sale of equity investments (d)	15,500	
Net cash provided by investing activities		10,000
Cash flows from financing activities		
Payment of dividends (e)	(19,000)	
Retirement of bonds payable (f)	(10,000)	
Issuance of ordinary shares (g)	20,000	
Net cash used by financing activities		(9,000)
Net increase (decrease) in cash		56,050
Cash, January 1, 2011		10,000
Cash, December 31, 2011		$66,050

Non-cash investing and financing activities*

Issuance of bonds for equipment	$32,000

*Presented in the notes to the financial statements.

Explanation

Dear Mr. Brauer:

Enclosed is your statement of cash flows for the year ending December 31, 2011. I would like to take this opportunity to explain the changes which occurred in your business as a result of cash activities during 2011. (Please refer to the attached statement of cash flows.)

The first category shows the net cash flow which resulted from all of your operating activities. Operating activities are those engaged in for the routine conduct of business, involving most of the transactions used to determine net income. The cash inflow from operations which affects this category is net income. However, this figure must be adjusted, first for depreciation (item a)—because this expense did not involve a cash outlay in 2011—and second for the $500 gain on the sale of your investment portfolio (item b). The gain must be subtracted from this section because it was included in net income, but it is not the result of an operating activity—it is an investing activity.

The second category, cash flows from investing activities, results from the acquisition/disposal of long-term assets including the purchase of another entity's debt or equity securities. Your purchase of land (item c) as well as the sale of your investment portfolio (item d) represent your investing activities during 2011, the purchase being a $5,500 outflow and the sale being a $15,500 inflow.

Cash flows arising from the issuance and retirement of debt and equity securities are properly classified as "Cash flows from financing activities." These inflows and outflows generally include the non-current liability and equity items on the statement of financial position. Examples of your financing activities resulting in cash flows are the payment of dividends (item e), the retirement of your bonds payable (item f), and your issuance of ordinary shares (item g). Note that, although $32,000 worth of bonds were issued for the purchase of heavy equipment, the transaction has no effect on the change in cash from January 1, 2011 to December 31, 2011.

I hope this information helps you to better understand the enclosed statement of cash flows. If I can further assist you, please let me know.

Sincerely,

CHAPTER 24

Presentation and Disclosure in Financial Reporting

ASSIGNMENT CLASSIFICATION TABLE (BY TOPIC)

	Topics	Questions	Brief Exercises	Exercises	Problems	Concepts for Analysis
1.	The disclosure principle; type of disclosure.	2, 3, 22				1, 2, 3
2.	Role of notes that accompany financial statements.	1, 4, 5	1, 2			1, 2, 3, 4
3.	Subsequent events.	6	3	1, 2	1	4, 11
4.	Segment reporting; diversified firms.	7, 8, 9, 10, 11	4, 5, 6, 7	3	2	5, 6
5.	Interim reporting.	12, 13, 14, 15, 23				7, 8
6.	Audit opinions and fraudulent reporting.	20, 21				10
7.	Discussion and analysis.	16, 17				
8.	Earnings forecasts.	18, 19				9
*9.	Interpretation of ratios.	24, 25, 26		4, 5, 6	5	
*10.	Impact of transactions on ratios.		8		3	12
*11.	Liquidity ratios.		8	4, 5, 6	3, 5	
*12.	Profitability ratios.	28		4, 5, 6	3, 5	
*13.	Coverage ratios.			4, 5, 6		
*14.	Activity ratios.	27, 28	8, 9	4, 5, 6	3	
*15.	Comprehensive ratio problems.			4, 5, 6	3, 5	
*16.	Percentage analysis.	26, 29		4	3, 4	
*17.	First-time adoption of IFRS.	30, 31, 32, 33, 34, 35, 36, 37, 38, 39	10, 11, 12 13, 14, 15	7, 8		

*This material is dealt with in an Appendix to the chapter.

ASSIGNMENT CLASSIFICATION TABLE (BY LEARNING OBJECTIVE)

Learning Objectives		Brief Exercises	Exercises	Problems
1.	Review the full disclosure principle and describe implementation problems.			
2.	Explain the use of notes in financial statement preparation.	1, 2, 3	1, 2	1
3.	Discuss the disclosure requirements for major business segments.	4, 5, 6, 7	3	2
4.	Describe the accounting problems associated with interim reporting.			
5.	Identify the major disclosures in the auditor's report.			
6.	Understand management's responsibilities for financials.			
7.	Identify issues related to financial forecasts and projections.			
8.	Describe the profession's response to fraudulent financial reporting.			
*9.	Understand the approach to financial statement analysis.			
*10.	Identify major analytic ratios and describe their calculation.	8, 9	4, 5, 6	3, 5
*11.	Explain the limitations of ratio analysis.			
*12.	Describe techniques of comparative analysis.			3
*13.	Describe techniques of percentage analysis.			4
*14.	Describe the guidelines for first-time adoption of IFRS.			
*15.	Describe the implementation steps for preparing the opening IFRS statement of financial position.	10, 11, 12, 13, 14	7, 8	
*16.	Describe the exemptions to retrospective application in first-time adoption of IFRS.	15	7, 8	
*17.	Describe the presentation and disclosure requirements of first-time adoption of IFRS.		8	

ASSIGNMENT CHARACTERISTICS TABLE

Item	Description	Level of Difficulty	Time (minutes)
E24-1	Subsequent events.	Moderate	10–15
E24-2	Subsequent events.	Moderate	10–15
E24-3	Segmented reporting.	Moderate	5–10
*E24-4	Ratio computation and analysis; liquidity.	Simple	20–30
*E24-5	Analysis of given ratios.	Moderate	20–30
*E24-6	Ratio analysis.	Moderate	30–40
*E24-7	Opening statement of financial position	Moderate	10–15
*E24-8	Opening statement of financial position	Moderate	15–20
P24-1	Subsequent events.	Difficult	40–50
P24-2	Segmented reporting.	Moderate	24–30
*P24-3	Ratio computations and additional analysis.	Moderate	35–45
*P24-4	Horizontal and vertical analysis.	Simple	40–60
*P24-5	Dividend policy analysis.	Difficult	40–50
CA24-1	General disclosures, inventories, property, plant, and equipment.	Simple	10–20
CA24-2	Disclosures required in various situations.	Moderate	20–25
CA24-3	Disclosures, conditional and contingent liabilities.	Simple	24–30
CA24-4	Subsequent events.	Moderate	20–25
CA24-5	Segment reporting.	Moderate	30–35
CA24-6	Segment reporting—theory.	Simple	25–30
CA24-7	Interim reporting.	Simple	20–25
CA24-8	Treatment of various interim reporting situations.	Moderate	30–35
CA24-9	Financial forecasts.	Moderate	25–30
CA24-10	Disclosure of estimates—ethics.	Moderate	15–20
CA24-11	Reporting of subsequent events—ethics.	Simple	10–15
*CA24-12	Effect of transactions on financial statements and ratios.	Moderate	25–35

ANSWERS TO QUESTIONS

1. The major advantages are: (1) additional information pertinent to specific financial statements can be explained in qualitative terms, (2) supplementary data of a quantitative nature can be provided to expand on the information in the financial statements, and (3) restrictions on basic contractual agreements can be explained. The types of items normally found in footnotes are: (1) disclosure of accounting policies used, (2) disclosure of contingent assets and liabilities, (3) examination of creditor claims, (4) claims of equity holders, and (5) executory commitments.

2. The full disclosure principle in accounting calls for reporting in financial statements any financial facts significant enough to influence the judgment of an informed reader. Disclosure has increased because of the complexity of the business environment, the necessity for timely information, and the desire for more information on the enterprise for control and monitoring purposes.

3. The benefit of reconciling the effective tax rate and the federal statutory rate is that an investor can determine the actual taxes paid by the enterprise. Such a determination is particularly important if the enterprise has substantial fluctuations in its effective tax rate caused by unusual or infrequent transactions. In some cases, companies only have income in a given period because of a favorable tax treatment that is not sustainable. Such information should be extremely useful to a financial statement reader.

4. (a) The increased likelihood that the company will suffer a costly strike requires no disclosure in the financial statements. The possibility of a strike is an inherent risk of many businesses. It, along with the risks of war, recession, etc., is in the category of general news.

(b) A note should provide a description of the loss on a discontinued operation in order that the financial statement user has some understanding of the nature of this item.

(c) Contingent assets which may materially affect a company's financial position must be disclosed when the surrounding circumstances indicate that, in all likelihood, a valid asset will materialize. In most situations, an asset would not be recognized until the court settlement had occurred.

5. Transactions between related parties are disclosed to insure that the users of the financial statements understand the basic nature of some of the transactions. Because it is often difficult to separate the economic substance from the legal form in related party transactions, disclosure is used extensively in this area. Purchase of a substantial block of the company's ordinary shares by Holland, coupled with the use of a Holland affiliate to act as food broker, suggests that disclosure is needed.

6. "Subsequent events" are of two types:

(1) Those which affect the financial statements directly and should be recognized therein through appropriate adjustments.
(2) Those which do not affect the financial statements directly and require no adjustment of the account balances but whose effects may be significant enough to be disclosed with appropriate figures or estimates shown.

(a) Probably adjust the financial statements directly.
(b) Disclosure.
(c) Disclosure.
(d) Disclosure.
(e) Neither adjustment nor disclosure necessary.
(f) Neither adjustment nor disclosure necessary.
(g) Probably adjust the financial statements directly.
(h) Neither adjustment nor disclosure necessary.

7. Diversified companies are enterprises whose activities are segmented into unrelated industries. The accounting problems related to diversified companies are: (1) the problem of defining a segment for financial reporting purposes, (2) the difficulty of allocating common or joint costs to various segments, and (3) the problem of evaluating segment results when a great deal of transfer pricing is involved.

8. After the company decides on the segments for possible disclosure, a quantitative test is made to determine whether the segment is significant enough to warrant actual disclosure. A segment is identified as a reportable segment if it satisfies **one or more** of the following tests.

(a) Its **revenue** (including both sales to external customers and intersegment sales or transfers) is 10% or more of the combined revenue (sales to external customers and intersegment sales or transfers) of all the company's operating segments.
(b) The absolute amount of its **operating profit or operating loss** is 10% or more of the greater, in absolute amount, of
  1. the combined operating profit of all operating segments that did not incur an operating loss, or
  2. the combined loss of all operating segments that did incur loss.
(c) Its **identifiable assets** are 10% or more of the combined identifiable assets of all segments.

In applying these tests, two additional factors must be considered. First, segment data must explain a significant portion of the company's business. Specifically, the segmented results must equal or exceed 75% of the combined sales to unaffiliated customers for the entire company. This test prevents a company from providing limited information on only a few segments and lumping all the rest into one category.

Second, the profession recognized that reporting too many segments may overwhelm users with detailed information. The IASB decided that 10 is a reasonable upper limit for the number of segments that a company must disclose.

9. IFRS requires that a company report:

(a) General information about its operating segments.
(b) Segment profit and loss and related information.
(c) Segment assets and liabilities.
(d) Reconciliations (reconciliations of total revenues, income before income taxes, and total assets and liabilities).
(e) Information about products and services and geographic areas.
(f) Major customers.

10. An operating segment is a component of an enterprise:

(a) That engages in business activities from which it earns revenues and incurs expenses.
(b) Whose operating results are regularly reviewed by the company's chief operating decision maker to assess segment performance and allocate resources to the segment.
(c) For which discrete financial information is available that is generated by or based on the internal financial reporting system.

Information about two operating segments can be aggregated only if the segments have the same basic characteristics related to the: (1) nature of the products and services provided, (2) nature of the production process, (3) type or class of customer, (4) methods of product or service distribution, and (5) nature of the regulatory environment.

11. One of the major reasons for not providing segment information is that competitors will then be able to determine the profitable segments and enter that product line themselves. If this occurs and the other company is successful, then the present shareholders of Lafayette Inc. may suffer. This question should illustrate to the student that the answers are not always black and white. Disclosure of segments undoubtedly provides some needed information, but some disclosures are confidential.

12. Interim reports are unaudited financial statements normally prepared four times a year. A complete set of interim financial statements is often not provided because this information is not deemed crucial over a short period of time; the income figure has much more relevance to interim reporting.

13. The accounting problems related to the presentation of interim data are as follows:

(a) The difficulty of allocating costs, such as income taxes, pensions, etc., to the proper quarter.
(b) Problems of fixed cost allocation.

14. A company records losses from inventory write-downs in an interim period similar to how it would record them in annual financial statements. However, if an estimate from a prior interim period changes in a subsequent interim period of that year, the write-down is adjusted in the subsequent interim period.

15. One suggestion has been to normalize the fixed nonmanufacturing costs on the basis of seasonal sales. The problem with this method is that future sales are unknown and hence a great deal of subjectivity is involved. Another approach is to charge as a period charge those costs that are impossible to allocate to any one period. Under this approach, reported results for a quarter would only indicate the contribution toward fixed costs and profits, which is essentially a contribution margin approach. To alleviate the problem of seasonality, the profession recommends companies subject to material seasonal variations disclose the seasonal nature of their business and consider supplementing their annual reports with information for 12-month periods ended at the interim dates for the current and preceding years.

16. The management commentary section covers three financial aspects of an enterprise's business—liquidity, capital resources, and results of operations. It requires management to highlight favorable or unfavorable trends and to identify significant events and uncertainties that affect these three factors.

17. Management has the primary responsibility for the preparation, integrity, and objectivity of the company's financial statements. If management wishes to present information in a certain way, it may do so. If the auditor objects because IFRS is violated, some type of modified opinion is called for.

18. Arguments against providing earnings projections:

(a) No one can foretell the future. Therefore forecasts, while conveying an impression of precision about the future, will nevertheless inevitably be wrong.
(b) Organizations will not strive to produce results which are in the shareholders' best interest, but merely to meet their published forecasts.
(c) When forecasts are not met, there will be recriminations and probably legal actions.
(d) Disclosure of forecasts will be detrimental to organizations because it will fully inform not only investors but competitors (foreign and domestic).

19. Arguments for providing earnings forecasts are:

(a) Investment decisions are based on future expectations; therefore, information about the future facilitates better decisions.
(b) Forecasts are already circulated informally. This situation should be regulated to ensure that forecasts are available to all investors.
(c) Circumstances now change so rapidly that historical information is no longer adequate for prediction.

20. The auditor expresses a “clean” or unmodified opinion when the client’s financial statements present fairly the client’s financial position and results of operations on the basis of an examination made in accordance with generally accepted auditing standards, and the statements are in conformity with accepted accounting principles and include all informative disclosures necessary to make the statements not misleading. The auditor expresses a modified opinion when he/she must take exception to the presentation of one or more components of the financial statements but the exception or exceptions are not serious enough to negate his/her expression of an opinion or to express an “adverse” opinion.

21. Fraudulent financial reporting is intentional or reckless conduct, whether by act or omission, that results in materially misleading financial statements. Fraudulent financial reporting can involve many factors and take many forms. It may entail gross and deliberate distortion of corporate records, such as inventory count tags, or falsified transactions, such as fictitious sales or orders. It may entail the misapplication of accounting policies. Company employees at any level may be involved, from top to middle management to lower-level personnel. If the conduct is intentional, or so reckless that it is the legal equivalent of intentional conduct, and results in fraudulent financial statements, it comes within the operating definition of the term **fraudulent financial reporting.**

Fraudulent financial reporting differs from other causes of materially misleading financial statements, such as unintentional errors. Fraudulent financial reporting is distinguished from other corporate improprieties, such as employee embezzlements, violations of environmental or product safety regulations, and tax fraud, which do not necessarily cause financial statements to be materially inaccurate.

Fraudulent financial reporting usually occurs as the result of certain environmental, institutional, or individual forces and opportunities. These forces and opportunities add pressures and incentives that encourage individuals and companies to engage in fraudulent financial reporting and are present to some degree in all companies. If the right combustible mixture of forces and opportunities is present, fraudulent financial reporting may occur.

A frequent incentive for fraudulent financial reporting that improves the company’s financial appearance is the desire to obtain a higher price from an equity or debt offering or to meet the expectations of investors. Another incentive may be the desire to postpone dealing with financial difficulties and thus avoid, for example, violating a restrictive debt covenant. Other times the incentive is personal gain: additional compensation, promotion, or escape from penalty for poor performance.

Situational pressures on the company or an individual manager also may lead to fraudulent financial reporting. Examples of these situational pressures include:

Sudden decreases in revenue or market share. A single company or an entire industry can experience these decreases.

Unrealistic budget pressures, particularly for short-term results. These pressures may occur when a company arbitrarily determines profit objectives and budgets without taking actual conditions into account.

Financial pressure resulting from bonus plans that depend on short-term economic performance. This pressure is particularly acute when the bonus is a significant component of the individual’s total compensation.

Opportunities for fraudulent financial reporting are present when the fraud is easier to commit and when detection is less likely. Frequently these opportunities arise from:

The absence of a board of directors or audit committee that vigilantly oversees the financial reporting process.

Weak or nonexistent internal accounting controls. This situation can occur, for example, when a company's revenue system is overloaded from a rapid expansion of sales, an acquisition of a new division, or the entry into a new, unfamiliar line of business.

Unusual or complex transactions. Examples include the consolidation of two companies, the divestiture or closing of a specific operation, and agreements to buy or sell government securities under a repurchase agreement.

Accounting estimates requiring significant subjective judgment by company management. Examples include allowance for loan losses and the yearly provision for warranty expense.

22. U.S. GAAP and IFRS have similar standards on subsequent events. Subsequent events under IFRS are evaluated through the date that financial statements are "authorized for issue." U.S. GAAP uses the date when financial statements are "issued." IFRS does not adjust for share dividends and splits in the subsequent period but U.S. GAAP does adjust. Both IFRS and U.S. GAAP use the management approach to identify reportable segments, and similar segment disclosures are required.

23. While U.S. GAAP has a preference for the integral approach, IFRS leans toward the discrete approach to interim reports. Thus, if an IFRS company expenses interim amounts, like advertising expenditures that could benefit later interim periods, it may be difficult to compare to a U.S. company that would spread the cost across interim periods.

***24.** It has been said that "everything is relative," and this is certainly true of financial statement data. The chief significance of financial statement data is not so much in the absolute amounts presented but in their relative significance; that is, in the conclusions reached after comparing each item with similar items and after association with related data. Financial statements present measures of quantity (this is not to exclude the qualitative aspects of things that dollar quantities reflect), but whether any amount is adequate or not in view of the company's needs, or whether it represents an amount out of proportion to the company's other amounts, or whether it represents an improvement over previous years cannot be determined from the absolute amount alone.

***25.** Your friend should be advised that in order to interpret adequately and to evaluate financial statement data, an individual must:

(a) Understand the nature and limitations of accounting.
(b) Understand the terminology of accounting and business.
(c) Have some knowledge of business.
(d) Be acquainted with the nature and tools of financial statement analysis.

***26.** Percentage analysis consists of reducing a series of related amounts to a series of percentages of a given base while ratio analysis is the computation of any specific ratio of one figure to another within the reported data.

Percentage analysis facilitates comparison and is helpful in evaluating the relative size of a series of items. Ratio analysis points out the existence of a specific relationship and then proceeds to measure the relationship in terms of either a percentage figure or a single proportion.

***27.** Cost of goods sold is used for two reasons: first, cost must be used rather than retail value because the average inventory figures are on a cost basis. Second, since measurement of the turnover involves determination of the number of times inventory was sold this period in comparison to the total cost incurred, cost of goods sold must be used as representative of total cost incurred. An increasing inventory turnover may be an indication of stockouts or inventory shortages.

***28.** The relationship of asset turnover to the rate of return on assets is as follows:

$$\frac{\text{Sales}}{\text{Average Total Assets}} \times \frac{\text{Net Income}}{\text{Sales}} = \frac{\text{Net Income}}{\text{Average Total Assets}}$$

An increase in the asset turnover, holding profit margin constant, results in an increase in rate of return on assets and vice versa.

***29.** (a) **Common-size analysis** is reduction of all dollar amounts in the financial statements to a percentage of a base amount.

(b) **Vertical analysis** is the expression percentage-wise of each item on a financial statement in a given period to a base figure.

(c) **Horizontal analysis** is the computation of the percentage change over time.

(d) **Percentage analysis** consists of reducing a series of related amounts to a series of percentages of a given base. This type of analysis facilitates comparisons and is helpful in evaluating the relative size of items such as expenses, current assets, or net income.

***30.** When countries accept IFRS for use as accepted accounting policies, companies need guidance to ensure that their first IFRS financial statements contain high quality information. *IFRS No. 1* requires that information in a company's first IFRS statements be transparent, provide a suitable starting point, and have a cost that does not exceed the benefits.

***31.** The transition date is the beginning of the earliest period for which full comparative IFRS information is presented. The reporting date is the closing statement of financial position date for the first IFRS financial statements.

***32.** The characteristics of high quality information in a company's first IFRS financial statements are that information be transparent, provide a suitable starting point, and have a cost that does not exceed the benefits.

***33.** The steps in preparing the opening IFRS statement of financial position include the following:

1. Include all assets and liabilities that IFRS requires.
2. Exclude any assets and liabilities that IFRS does not permit.
3. Classify all assets, liabilities, and equity in accordance with IFRS.
4. Measure all assets and liabilities according to IFRS.

***34.** The IASB allows exemptions to retrospective application because in some cases adjustments relating to prior periods cannot be reasonably determined. In other cases it is impracticable to provide comparable information because the cost of generating the information exceeds the benefits.

35. The IASB identified three required exemptions to retrospective application in first-time adoption of IFRS. They are estimates, hedge accounting, and non-controlling interests.

There exemptions are imposed because implementation of retrospective application in these areas generally requires companies to obtain information that may not be readily available.

36. Elective exemptions to retrospective application in first-time adoption of IFRS include all of the following: share-based payment transactions, fair value or revaluation as deemed cost, leases, employee benefits, compound financial instruments, and borrowing costs, (only three exemptions requested).

37. The deemed cost exemption to retrospective application allows companies to measure property, plant, and equipment at fair value at the transition date and use that fair value as their deemed cost in accounting for those assets in subsequent periods. Companies avoid recreating depreciation cost records for property, plant and equipment, a costly exercise for many companies, by using this exemption.

***38.** A company that elects the deemed cost exemption is not required to continue using revaluation accounting subsequent to first-time adoption.

The IASB decided the reconstructed cost data might be less relevant to users compared to fair value information. Therefore, companies are permitted to use fair value as deemed cost at first-time adoption.

***39.** A company must present at least one year of comparative information under IFRS upon first-time adoption of IFRS. An entity's first IFRS financial statements shall include at least three statements of financial position, two statements of comprehensive income, two separate income statements (if presented), two statements of cash flows and two statements of changes in equity and related notes, including comparative information. Companies must explain how the transition from previous GAAP to IFRS affected its reported financial position, financial performance, and cash flows.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 24-1

The reader should recognize that the firm has an obligation for lease payments of approximately $5,711,000 for the next three years. In certain situations, this information is very important in determining: (1) the ability of the firm to use additional lease financing, and (2) the nature of maturing commitments and the amount of cash expenditures involved. Off-balance-sheet financing is common and the investor should be cognizant that the company has a commitment even though it is not reflected in the liability section of the statement of financial position. The rental income from the subleases also provides useful information concerning the company's ability to generate revenues in the near future.

BRIEF EXERCISE 24-2

The reader should recognize that there are dilutive securities outstanding which may have an effect on earnings per share. In addition, the purchase of treasury shares enabled the company to increase its earnings per share. The important point concerning this note is that information is provided about potential dilution related to some dilutive securities outstanding.

BRIEF EXERCISE 24-3

Net income will decrease by €10,000 (€160,000 – €170,000) as a result of the adjustment of the liability. The settlement of the liability is the type of subsequent event which provides additional evidence about conditions that existed at the statement of financial position date. The flood loss (€80,000) is an event that provides evidence about conditions that did not exist at the statement of financial position date but are subsequent to that date and does not require adjustment of the financial statements.

BRIEF EXERCISE 24-4

It should be emphasized that because a company discloses its segmental results, this does not diminish the necessity for providing consolidated results as well. Sometimes individuals become confused because they believe that employment of segmental reporting means that consolidated statements should not be presented. There appears to be a need to provide both types of information. The consolidated results provide information on overall financial position and profitability, while the segmental results provide information on the specific details which comprise the overall results.

BRIEF EXERCISE 24-5

¥600 + ¥650 + ¥250 + ¥275 + ¥225 + ¥200 + ¥700 = ¥2,900 = total revenue.
¥2,900 X 10% = ¥290.
Penley, Konami, and Molina meet this test, since their revenues equaled or exceeded ¥290.

BRIEF EXERCISE 24-6

¥90 + ¥25 + ¥50 + ¥34 + ¥150 = ¥349 = total profits of profitable segments.
¥349 X 10% = ¥34.90.
Penley, Konami, Red Moon, and Molina meet this test, since their absolute profit or loss is equal to or greater than ¥34.90.

BRIEF EXERCISE 24-7

¥500 + ¥550 + ¥250 + ¥400 + ¥200 + ¥150 + ¥475 = ¥2,525 = total assets.
¥2,525 X 10% = ¥252.50.
Penley, Konami, Red Moon, and Molina meet this test, since their identifiable assets equal or exceed ¥252.50.

***BRIEF EXERCISE 24-8**

(a) X + $500,000 = 5X
$500,000 = 4X
$125,000 = Current liabilities

(b) Cost of goods sold last year = $200,000 X 5 = $1,000,000
$1,000,000 ÷ 8 = $125,000 = Average inventory in current year

(c) $ 90,000 ÷ $40,000 = Current ratio of 2.25:1
$ 50,000 ÷ $40,000 = Acid-test ratio of 1.25:1
$105,000 ÷ $55,000 = Current ratio of 1.91:1
$ 65,000 ÷ $55,000 = Acid-test ratio of 1.18:1

(d) $600,000 ÷ $420,000 = 1.43:1 after declaration, but before payment
After payment, $420,000 ÷ $240,000 = 1.75:1

***BRIEF EXERCISE 24-9**

$$\frac{\text{Cost of Goods Sold}}{\text{Average Inventory}} = \text{Inventory Turnover}$$

$$\frac{£99{,}000{,}000}{\text{Average Inventory}} = 9$$

Average inventory (current) therefore equals £11,000,000 (£99,000,000 ÷ 9).

$$\frac{£99{,}000{,}000}{\text{Average Inventory}} = 12$$

Average inventory (new) equals £8,250,000 (£99,000,000 ÷ 12).

£2,750,000* X 10% = £275,000 cost savings.

*(£11,000,000 – £8,250,000)

***BRIEF EXERCISE 24-10**

Becker's opening balance sheet will be dated January 1, 2012. The periods covered in Becker's first IFRS financial statements will be 2012 and 2013.

***BRIEF EXERCISE 24-11**

Retained Earnings	40,000	
Patent		40,000

***BRIEF EXERCISE 24-12**

Inventory	15,000	
Retained Earnings		15,000

***BRIEF EXERCISE 24-13**

Retained Earnings	37,000	
Prepaid Advertising/Deferred Advertising Costs		37,000

***BRIEF EXERCISE 24-14**

Retained Earnings	**85,000**	
Litigation Liability		**85,000**

***BRIEF EXERCISE 24-15**

The deemed cost exemption can be used to measure property, plant and equipment and intangible assets in certain situations. This exemption can only be used for Asset 3 since it does not apply to Assets 1 and 4, and the intangible assets have no active market.

SOLUTIONS TO EXERCISES

EXERCISE 24-1 (10–15 minutes)

(a) The issuance of ordinary shares is an example of a subsequent event which provides evidence about conditions that did not exist at the statement of financial position date but arose subsequent to that date. Therefore, no adjustment to the financial statements is recorded. However, this event should be disclosed either in a note, a supplemental schedule, or even proforma financial data.

(b) The changed estimate of taxes payable is an example of a subsequent event which provides additional evidence about conditions that existed at the statement of financial position date. The income tax liability existed at December 31, 2010, but the amount was not certain. This event affects the estimate previously made and should result in an adjustment of the financial statements. The correct amount ($1,320,000) would have been recorded at December 31 if it had been available. Therefore, Keystone should increase income tax expense in the 2010 income statement by $220,000 ($1,320,000 – $1,100,000). In the statement of financial position, income taxes payable should be increased and retained earnings decreased by $220,000.

EXERCISE 24-2 (10–15 minutes)

1.	(a)	4.	(b)	7.	(c)	10.	(c)
2.	(c)	5.	(c)	8.	(c)	11.	(a)
3.	(b)	6.	(b)	9.	(a)	12.	(b)

EXERCISE 24-3 (5–10 minutes)

(a) Revenue test: 10% X €102,000 = €10,200.
Segments W (€60,000) and Y (€23,000) both meet this test.

(b) Operating profit test: 10% X (€15,000 + €1,500 + €1,000) = €1,750.
Segments W (€15,000) and Y (€2,000 absolute amount) both meet this test.

(c) Identifiable assets test: 10% X €290,000 = €29,000.
Segments W (€167,000) and X (€83,000) both meet this test.

***EXERCISE 24-4 (20–30 minutes)**

Computations are given below which furnish some basis of comparison of the two companies:

	Plunkett Co.		Herring Co.
Composition of current assets			
Inventories	63%		45%
Receivables	24%		27%
Cash	13%		28%
	100%		100%
Computation of various ratios			
Current ratio ($910 ÷ $300)	3.03 to 1	($1,140 ÷ $350)	3.26 to 1
Acid-test ratio ($120 + $220) ÷ $300	1.13 to 1	($320 + $302) ÷ $350	1.78 to 1
Accounts receivable turnover ($930 ÷ $220)	4.23 times	($1,500 ÷ $302)	4.97 times
Inventory turnover	1.14[a] times		1.74[b] times
Cash to current liabilities ($120 ÷ $300)	.40 to 1	($320 ÷ $350)	.91 to 1

[a]($930 X .70) ÷ $570 [b]($1,500 X .60) ÷ $518

Herring Co. appears to be a better short-term credit risk than Plunkett Co. Analysis of various liquidity ratios demonstrates that Herring Co. is stronger financially, all other factors being equal, in the short-term. Comparative risk could be judged better if additional information were available relating to such items as net income, purpose of the loan, due date of current and non-current liabilities, future prospects, etc.

***EXERCISE 24-5 (20–30 minutes)**

(a) The acid-test ratio is the current ratio with the subtraction of inventory and prepaid expenses (generally insignificant relative to inventory) from current assets. Any divergence in trend between these two ratios would therefore be dependent upon the inventory account. Inventory turnover has declined sharply in the three-year period, from 4.91 to 3.72. During the same period, sales to fixed assets have increased and total sales have increased 5 percent. The decline in the inventory turnover is therefore not due to a decline in sales. The apparent cause is that investment in inventory has increased at a faster rate than sales, and this has accounted for the divergence between the acid-test and current ratios.

***EXERCISE 24-5 (Continued)**

(b) Financial leverage has definitely declined during the three-year period. This is shown by the steady drop in the long-term debt-to-total-assets ratio, and the total-debt-to-total-assets ratio. Apparently the decline of debt as a percentage of this firm's capital structure is accounted for by a reduction in the long-term portion of the firm's indebtedness. This reduction of leverage accounts for the decrease in the return on equity ratio. This conclusion is reinforced by the fact that net income to sales and return on total assets have both increased.

(c) The company's investment in plant and equipment has decreased during the three-year period 2009–2011. This conclusion is reached by using the sales to fixed assets (fixed asset turnover) and sales as a percent of 2009 sales ratios.

Because sales have grown each year, the sales to fixed assets could be expected to increase unless fixed assets grew at a faster rate. The sales to fixed assets ratio increased at a faster rate than the 3 percent annual growth in sales; therefore, investment in plant and equipment must have declined.

***EXERCISE 24-6 (30–40 minutes)**

(a) The <u>current ratio</u> measures overall short-term liquidity and is an indicator of the short-term debt-paying ability of the firm.

The <u>quick ratio</u> also is a measure of short-term liquidity. However, it is a measure of more immediate liquidity than the current ratio and is an indicator of a firm's ability to pay all of its immediate debts from cash or near-cash assets. The quick ratio is also an indicator of the degree of inventories in its current assets when compared to the current ratio.

<u>Inventory turnover</u> is an indicator of the number of times a firm sells its average inventory level during the year. A low inventory turnover may indicate excessive inventory accumulation or obsolete inventory.

<u>Net sales to shareholders' equity</u> is an activity ratio that measures the number of times the shareholders' equity was turned over in sales volume. This ratio could also be referred to as a net asset turnover ratio that measures net asset management. Thus, it is a measure of operational efficiency.

***EXERCISE 24-6 (Continued)**

<u>Net income to shareholders' equity</u> is a profitability ratio. It measures the return on shareholders' investment and is used to evaluate the company's success in generating income for the benefit of its shareholders (i.e., management effectiveness).

<u>Total liabilities to shareholders' equity</u> compares the amount of resources provided by creditors to the resources provided by shareholders. Thus, it measures the extent of leverage in the company's financial structure and is used to evaluate or judge the degree of financial risk.

(b) The two ratios that each of the four entities would specifically use to examine Howser Inc. are as follows:

Citizens National Bank might employ the current or quick ratio and the total liabilities to shareholders' equity ratio.

Charleston Company might employ either the current or quick ratios in conjunction with either the inventory turnover or total liabilities to shareholders' equity ratio.

Shannon Financial might employ net sales to shareholders' equity and net income to shareholders' equity.

The Working Capital Management Committee might review the current or quick ratio and the inventory turnover ratio.

(c) Howser Inc. appears to have a strong current/liquidity position as evidenced by the current and quick ratios that have been improving over the three-year period. In addition, the current ratio is greater than the industry average and the quick ratio is just slightly below. However, the increase in the current ratio could be due to an increase in inventory levels. This fact is confirmed by the deteriorating inventory turnover ratio that is also below the industry average. Overstock or obsolete inventory conditions may exist.

Howser's profitability is good as indicated by the profitability ratios that have been increasing. Both profitability ratios are greater than the industry average. The net profit margin (net income to net sales) can be derived from these two ratios (net income to shareholders' equity and net sales to shareholders' equity), and Howser's margin has increased each year (2009: 5.09%; 2010: 5.36%; 2011: 5.76%) and exceeds the industry average (3.86%).

***EXERCISE 24-6 (Continued)**

The total liabilities to shareholders' equity ratio has increased over the three-year period and exceeds the industry average, indicating a heavy reliance on debt. This high leverage position could be dangerous if sales volume, sales margin, or income falls because interest expense is a fixed cash outlay.

***EXERCISE 24-7 (10–15 minutes)**

(a)	1. Dividends Payable	45,000	
	Retained Earnings		45,000
	2. Retained Earnings	500,000	
	Prepaid Advertising/Deferred Advertising Costs		500,000

(b) Net change in equity: €45,000 – €500,000 = (€455,000).

***EXERCISE 24-8 (15–20 minutes)**

(a)	1. Retained Earnings	75,000	
	Warranty Liability		75,000
	2. Building	60,000	
	Accumulated Depreciation		1,500
	Retained Earnings		58,500

(b) Net change in equity: (€75,000) + €58,500 = (€16,500).

(c) Lombardo must disclose how the adjustments affected its reported financial position, financial performance, and cash flows. Specifically, Lombardo would disclose that its assets are €58,500 higher, its liabilities €75,000 larger, and its equity €16,500 lower.

TIME AND PURPOSE OF PROBLEMS

Problem 24-1 (Time 40–50 minutes)
Purpose—to provide the student with various subsequent events to evaluate and to prepare the proper disclosures for each item, if necessary.

Problem 24-2 (Time 24–30 minutes)
Purpose—to provide the student with an understanding of the rules for segment reporting. The student must determine which of five segments are subject to segment reporting rules and describe the required disclosures.

***Problem 24-3** (Time 35–45 minutes)
Purpose—to provide the student with an understanding of certain key ratios. In addition, the student is asked to identify and explain what other financial reports or financial analysis might be employed. Also, the student is to determine whether the company can finance the plant expansion internally and whether an extension on the note should be made.

***Problem 24-4** (Time 40–60 minutes)
Purpose—to provide the student with an understanding of the conceptual merits in the presentation of financial statements by both horizontal analysis and vertical analysis. The student is required to prepare a comparative statement of financial position for the given financial information under each of the two approaches. The student is then asked to discuss the merits of each of the presentations.

***Problem 24-5** (Time 40–50 minutes)
Purpose—to provide the student with a situation in which ratio analysis is used in a decision concerning payment of dividends.

SOLUTIONS TO PROBLEMS

PROBLEM 24-1

ALMADEN CORPORATION
Statement of Financial Position
December 31, 2010

Assets			
Non-current assets			
Long-term investments			
Investments in land		$ 185,000	
Cash restricted for plant expansion		300,000	$485,000
Property, plant, and equipment			
Plant and equipment (pledged as collateral for bonds) ($4,130,000 + $1,430,000)	$5,560,000		
Less accumulated depreciation	1,430,000	4,130,000	
Land		564,700	4,694,700
Intangible assets			
Goodwill, at cost			252,000
Current assets			
Prepaid expenses		62,400	
Inventories		645,100	
Notes receivable		162,300	
Accounts receivable ($480,000 + $30,000)	510,000		
Less allowance for doubtful accounts	30,000	480,000	
Cash ($571,000 – $300,000)		271,000	
Total current assets			1,620,800
Total assets			$7,052,500

PROBLEM 24-1 (Continued)

Equity and Liabilities

Equity			
Share capital—ordinary, par value $10 per share; authorized 200,000 shares; 184,000 shares issued and outstanding	$1,840,000		
Share premium—ordinary	150,000	$1,990,000	
Retained earnings		2,545,600*	
Total equity			$4,535,600
Non-current liabilities			
Notes payable (due 2013)	157,400		
8% bonds payable (secured by plant and equipment)	750,000	907,400	
Current liabilities			
Accounts payable	510,000		
Unearned revenue	489,500		
Dividends payable	200,000		
Accrued wages payable	225,000		
Estimated income taxes payable	145,000		
Accrued interest payable ($750,000 X 8% X 8/12)	40,000		
Total current liabilities		1,609,500	
Total liabilities			2,516,900
Total equity and liabilities			$7,052,500

*Retained earnings	$2,810,600
Accrued wages omitted	(225,000)
Accrued interest	(40,000)
	$2,545,600

Additional comments:

1. The information related to the competitor should be disclosed because this innovation may have a significant effect on the company. The value of the inventory is overstated because of the need to reduce selling prices. This factor along with the net realizable value of the inventory should be disclosed.

2. The pledged assets should be described in the statement of financial position as indicated or in a footnote.

3. The error in calculating inventory will have been offset, so no adjustment is needed.

4. Accrued wages is included as a liability and retained earnings is reduced.

5. The fact that the gain on sale of certain plant assets was credited directly to retained earnings has no effect on the statement of financial position presentation.

6. Technically, the plant and equipment account should be separately disclosed and depreciation computed on each item individually. However, the information to divide the accounts was not given in this problem.

7. Accrued interest on the bonds ($750,000 X 8% X 8/12 = $40,000) was never recorded. This amount will also reduce retained earnings.

8. Since the loss from heavy damage was caused by a fire *after* the financial statement date, this event does not reflect conditions existing at that date. Thus, adjustment of the financial statements is not necessary. However, the loss should be disclosed in a note, especially since users of the financial statements who may have read about the fire in the newspaper, would likely be looking for disclosure of the financial implications.

PROBLEM 24-2

(a) Determination of reportable segments:

1. **Revenue test: 10% X $785,000* = $78,500. Only Segment C ($580,000) meets this test.**

   ***$40,000 + $75,000 + $580,000 + $35,000 + $55,000**

2. **Operating profit test: 10% X ($11,000 + $75,000 + $4,000 + $7,000) = $9,700. Segments A ($11,000), B ($15,000 absolute value), and C ($75,000) all meet this test.**

3. **Identifiable assets test: 10% X $730,000** = $73,000. Segments B ($80,000) and C ($500,000) meet this test.**

   ****$35,000 + $80,000 + $500,000 + $65,000 + $50,000**

(b) Disclosures required by IFRS:

	A	B	C	Other	Totals
External Revenues	$40,000	$ 55,000	$480,000	$ 90,000	$665,000
Intersegment Revenues		20,000	100,000		120,000
Total Revenues	40,000	75,000	580,000	90,000	$785,000
Cost of Goods Sold	19,000	50,000	270,000	49,000	
Operating Expenses	10,000	40,000	235,000	30,000	
Total Expenses	29,000	90,000	505,000	79,000	
Operating Profit (Loss)	$11,000	$(15,000)	$ 75,000	$ 11,000	$ 82,000
Identifiable Assets	$35,000	$ 80,000	$500,000	$115,000	$730,000

Reconciliation of revenues

Total segment revenues	$785,000
Revenues of immaterial segments	(90,000)
Elimination of intersegment revenues	(120,000)
Revenues from reportable segments	$575,000

Reconciliation of profit or loss

Total segment operating profit	$ 82,000
Profits of immaterial segments	(11,000)
Profits from reportable segments	$ 71,000

Reconciliation of assets

Total segment assets	$730,000
Assets of immaterial segments	(115,000)
Assets from reportable segments	$615,000

*PROBLEM 24-3

(a)

BRADBURN CORPORATION
Financial Statistics

1. Current ratio = $\dfrac{\text{Current assets}}{\text{Current liabilities}}$

2010: $\dfrac{\$320,000}{\$158,500}$ = 2.02 to 1 2011: $\dfrac{\$403,000}{\$164,000}$ = 2.46 to 1

2. Quick ratio = $\dfrac{\text{Current assets – Inventories}}{\text{Current liabilities}}$

2010: $\dfrac{\$270,000}{\$158,500}$ = 1.70 to 1 2011: $\dfrac{\$298,000}{\$164,000}$ = 1.82 to 1

3. Inventory turnover = $\dfrac{\text{Cost of goods sold}}{\text{Average inventory}}$

2011: $\dfrac{\$1,530,000}{\dfrac{\$50,000 + \$105,000}{2}}$ = 19.7 times (every 18.5 days)

4. Return on assets = $\dfrac{\text{Net income}}{\text{Average total assets}}$

2010: $\dfrac{\$297,000}{\dfrac{\$1,688,500 + \$1,740,500}{2}}$ = 17.3%

2011: $\dfrac{\$366,000}{\dfrac{\$1,740,500 + \$1,852,000}{2}}$ = 20.4%

5. Percent Changes

Percent Changes	Amounts (000s omitted) 2011	2010	Percent Increase
Sales	$3,000	$2,700	$\frac{\$300}{\$2,700} = 11.11\%$
Cost of goods sold	1,530	1,425	$\frac{\$105}{\$1,425} = 7.37\%$
Gross margin	1,470	1,275	$\frac{\$195}{\$1,275} = 15.29\%$
Net income after taxes	366	297	$\frac{\$69}{\$297} = 23.23\%$

(b) Other financial reports and financial analyses which might be helpful to the commercial loan officer of Hibernia Bank include:

1. The Statement of Cash Flows would highlight the amount of cash provided by operating activities, the other sources of cash, and the uses of cash for the acquisition of long-term assets and long-term debt requirement.

2. Projected financial statements for 2012 including a projected Statement of Cash Flows. In addition, a review of Bradburn's comprehensive budgets might be useful. These items would present management's estimates of operations for the coming year.

3. A closer examination of Bradburn's liquidity by calculating some additional ratios, such as day's sales in receivables, accounts receivable turnover, and day's sales in inventory.

4. An examination as to the extent that leverage is being used by Bradburn.

(c) Bradburn Corporation should be able to finance the plant expansion from internally generated funds as shown in the calculations presented on the next page.

***PROBLEM 24-3 (Continued)**

	(000 omitted)		
	2011	2012	2013
Sales	$3,000.0	$3,333.3	$3,703.6
Cost of goods sold	1,530.0	1,642.8	1,763.8
Gross margin	1,470.0	1,690.5	1,939.8
Operating expenses	860.0	948.2	1,045.5
Income before taxes	610.0	742.3	894.3
Income taxes (40%)	244.0	296.9	357.7
Net income	$ 366.0	$ 445.4	$ 536.6
Add: Depreciation		102.5	102.5
Deduct: Dividends		(260.0)	(260.0)
Note repayment		(6.0)	
Funds available for plant expansion		281.9	379.1
Plant expansion		(150.0)	(150.0)
Excess funds		$ 131.9	$ 229.1

Assumptions:

Sales increase at a rate of 11.11%.
Cost of goods sold increases at rate of 7.37%, despite depreciation remaining constant.
Other operating expenses increase at the same rate experienced from 2010 to 2011; i.e., at 10.26% ($80,000 ÷ $780,000).

Depreciation remains constant at $102,500.
Dividends remain at $2.00 per share.
Plant expansion is financed equally over the two years ($150,000 each year).
Loan extension is granted.

(d) Hibernia Bank should probably grant the extension of the loan, if it is really required, because the projected cash flows for 2012 and 2013 indicate that an adequate amount of cash will be generated from operations to finance the plant expansion and repay the loan. In actuality, there is some question whether Bradburn needs the extension because the excess funds generated from 2012 operations might cover the $70,000 loan repayment. However, Bradburn may want the loan extension to provide a cushion because its cash balance is low. The financial ratios indicate that Bradburn has a solid financial structure. If the bank wanted some extra protection, it could require Bradburn to appropriate retained earnings for the amount of the loan and/or restrict cash dividends for the next two years to the 2011 amount of $2.00 per share.

*PROBLEM 24-4

(a)

GILMOUR COMPANY
Comparative Statement of Financial Position
December 31, 2011 and 2010

	December 31			
Assets	**2011**		**2010**	
Fixed assets	$ 2,585,000	77.39%	$1,950,000	70.02%
Accumulated depreciation	(1,000,000)	(29.94)	(750,000)	(26.93)
Prepaid expenses	25,000	.75	25,000	.90
Inventories	1,060,000	31.74	980,000	35.18
Accounts receivable (net)	220,000	6.59	155,000	5.57
Short-term Investments	270,000	8.08	150,000	5.39
Cash	180,000	5.39	275,000	9.87
Total	$ 3,340,000	100.00%	$2,785,000	100.00%
Equity and Liabilities				
Share capital—ordinary	$2,100,000	62.87%	$1,770,000	63.56%
Retained earnings	570,000	17.07	550,000	19.75
Bonds payable	450,000	13.47	190,000	6.82
Accrued expenses	170,000	5.09	200,000	7.18
Accounts payable	50,000	1.50	75,000	2.69
Total	$3,340,000	100.00%	$2,785,000	100.00%

(b)

GILMOUR COMPANY
Comparative Statement of Financial Position
December 31, 2011 and 2010

	December 31		Increase or (Decrease)	
Assets	**2011**	**2010**	**$ Change**	**% Change**
Fixed assets	$ 2,585,000	$1,950,000	$ 635,000	32.56
Accumulated depreciation	(1,000,000)	(750,000)	(250,000)	33.33
Prepaid expenses	25,000	25,000	0	0
Inventories	1,060,000	980,000	80,000	8.16
Accounts receivable (net)	220,000	155,000	65,000	41.94
Short-term investments	270,000	150,000	120,000	80.00
Cash	180,000	275,000	(95,000)	(34.55)
Total	$ 3,340,000	$2,785,000	$ 555,000	19.93%
Equity and Liabilities				
Share capital—ordinary	$2,100,000	$1,770,000	$330,000	18.64
Retained earnings	570,000	550,000	20,000	(3.64)
Bonds payable	450,000	190,000	260,000	136.84
Accrued expenses	170,000	200,000	(30,000)	(15.00)
Accounts payable	50,000	75,000	(25,000)	(33.33)
Total	$3,340,000	$2,785,000	$555,000	19.93%

(c) The component percentage (common-size) statement of financial position makes easier analysis possible. It actually reduces total assets and total liabilities and equity to a common base. Thus, the statement is simplified into figures that can be more readily grasped. It can also show relationships that might be out of line. For example, management might believe that accounts receivable of 6.59% is rather low. Perhaps the company is not granting enough credit. The increased percentage of bonds payable from 6.82% to 13.47% indicates increased leverage which may reflect negatively on the company's debt-paying ability and long-run solvency. These percentages can be compared with those of other successful firms to see how the firm stands and to see where possible improvements could be made.

(d) A statement such as that in part (b) is a good analysis and breakdown of the total change in assets and liabilities and equity. The statement breaks down the 19.93% increase and makes it easier for analysts to spot any unusual items. The increase is explained on the asset side by an increase in accounts receivable, short-term investments, and fixed assets and on the liability side by an increase in bonds payable and share capital. This statement makes analysis of the year's operations generally easier.

*PROBLEM 24-5

(a) In establishing a dividend policy, the following are factors that should be taken into consideration:

1. **The expansion plans or goals of the organization and the need for monies to finance new activities.**

2. **The investment opportunities available to the company versus the return available to shareholders on earnings distributed by way of a cash dividend.**

3. **The possible effect on the market price of the company's shares of instituting a dividend, and the possible effect on financing alternatives.**

4. **The earnings ability and stability of the company—past and future.**

5. **The ability of the organization to maintain a given dividend in future years. To offer a dividend this year that cannot be maintained may be harmful. It could also be harmful to establish a policy seeming to call for increasing dividends over the years in the event the increase could not be kept up.**

6. **The current position of the company. Is cash available to pay the dividend? Will working capital be decreased to a dangerous level?**

7. **The possibility of offering a share dividend in addition to or rather than a cash dividend.**

8. **The dividend policies of other similar organizations.**

9. **The general condition of the economy in the area where the company operates, as well as in the country in general.**

10. **The tax situation of the company.**

11. **Legal restrictions, such as a restrictive covenant in a bond indenture.**

*PROBLEM 24-5 (Continued)

12. Personal tax situations of shareholders if known—whether preference for dividends or capital gains.

13. Degree of dispersion of shareholdings and shareholders' needs or preference for dividends.

(b)

	2011	2010	2009	2008	2007
Rate of return on assets	€2,400	€1,400	€800	€700	€250
	€22,000	€19,000	€11,500	€4,200	€3,000
	10.9%	7.4%	7.0%	16.7%	8.3%
Profit margin on sales	€2,400	€1,400	€800	€700	€250
	€20,000	€16,000	€14,000	€6,000	€4,000
	12.0%	8.8%	5.7%	11.7%	6.3%
Earnings per share	€2,400	€1,400	€800	€700	€250
	2,000	2,000	2,000	20	20
	€1.20	€.70	€.40	€35.00	€12.50
Price-earnings ratio	€9	€6	€4		
	€1.20	€.70	€.40		
	7.5 times	8.6 times	10 times		
Current ratio	€8,000	€6,000	€3,000	€1,200	€1,000
	€4,400*	€2,800	€1,800	€700	€600
	1.82 times	2.14 times	1.67 times	1.71 times	1.67 times

*€8,000 – €3,600

(c) While the return on assets, profit margin on sales, and earnings per share have been increasing, the market price of the shares has not given full recognition to these increases. This suggests that market factors (and perhaps industry factors) are having a depressing effect on the market price of the shares. It may be suggested that the relatively low market price of the shares may be due, in part, to the fact that dividends have not been paid in the past. It may be concluded that the company is in an improving operating position and appears to be able to pay a dividend (though the amount of cash is not given). It would, however, be wise to examine as many as possible of the other internal and external factors outlined in part (a) to this case.

***PROBLEM 24-5 (Continued)**

A dividend in the range of 12¢ to 36¢ being 10% to 30% of earnings per share for 2011, would appear to be reasonable. Cash required would be €240,000 (€.12 X 2,000,000) to €720,000 (€.36 X 2,000,000). Payments considerably in excess of €720,000 would appear to have a serious impact on working capital. This would provide a yield of between 1.3% and 4% on the average 2011 market value.

TIME AND PURPOSE OF CONCEPTS FOR ANALYSIS

CA 24-1 (Time 10–20 minutes)
Purpose—to provide the student with an understanding of the necessary information which must be disclosed in the financial statements with regard to certain asset classifications. The student is required to discuss each of these respective disclosures for Inventories and Property, Plant, and Equipment in the audited financial statements issued to the shareholders.

CA 24-2 (Time 20–25 minutes)
Purpose—to provide the student with an understanding of the necessary information which should be disclosed in the financial statements and notes. The student is required to evaluate the facts of four items concerning the company's operations and to discuss any additional disclosures in the financial statements and notes that the auditor should recommend with respect to these items.

CA 24-3 (Time 25–30 minutes)
Purpose—to provide the student with an understanding of the types of disclosures which are necessitated under certain circumstances. This case involves three independent situations dealing with such concepts as warranty claims, a self-insurance contingency, and the discovery of a probable loss subsequent to the date of the financial statements. The student is required to discuss the accrual treatment and type of disclosure necessary and the reasons why such disclosure is appropriate for each of the three situations.

CA 24-4 (Time 20–25 minutes)
Purpose—to provide the student with an understanding of the proper accounting for subsequent event transactions. Bankruptcy, issue of debt, strikes, and other typical subsequent event transactions are presented.

CA 24-5 (Time 30–35 minutes)
Purpose—to provide the student with an understanding of segment reporting requirements, including providing explanations as to which segments are reportable.

CA 24-6 (Time 25–30 minutes)
Purpose—to provide the student with an understanding of the concepts underlying the applications of segment reporting. The student is required to identify the reasons for requiring financial data to be reported by segments, the possible disadvantages of this requirement, and the accounting difficulties inherent in segment reporting.

CA 24-7 (Time 20–25 minutes)
Purpose—to provide the student with an understanding of the applications and requirements of interim financial reporting. The student is required to explain how a company's operating results would be reflected in a quarterly report and describe what financial information must be disclosed to a company's shareholders in the quarterly reports.

CA 24-8 (Time 30–35 minutes)
Purpose—to provide the student with an understanding of the concepts of interim reporting and its respective applications to specific financial information. This case involves six independent examples on how accounting facts might be reported on a company's quarterly reports. The student is required to evaluate each example and state whether the method proposed to be used for interim reporting would be acceptable under IFRS applicable to interim financial data.

CA 24-9 (Time 24–30 minutes)
Purpose—to provide the student with an understanding of the conceptual merits underlying the preparation of financial forecasts. The student is required to discuss the arguments for preparing profit forecasts, the purpose of the “safe harbor” rule, and the reasons why corporations are concerned about presenting financial forecasts.

CA 24-10 (Time 15–20 minutes)
Purpose—to provide the student with an understanding of an ethical dilemma that may arise in the future. In this case, the reason for the profit margin increasing is not properly described by the financial vice-president and the controller realizes the misstatement. The question is what should the controller do?

CA 24-11 (Time 10–15 minutes)
Purpose—to provide the student with an understanding of an ethical dilemma that may arise in the future. In this case, the company decides to delay the issuance of a debt offering to make their ratios look more impressive.

***CA 24-12** (Time 25–35 minutes)
Purpose—to provide the student with an understanding of the effects which various transactions have on a company’s financial status. The student is required to decide for each of these transactions the respective effect on the company’s net income, retained earnings, current ratio, equity, and equity per share.

SOLUTIONS TO CONCEPTS FOR ANALYSIS

CA 24-1

Koch Corporation must disclose the following information regarding inventories:

1. The dollar amount assigned to inventory.
2. The method of inventory pricing; e.g., FIFO, weighted average.
3. The basis of valuation; i.e., cost or lower-of-cost-or-net realizable value; if an amount other than cost is presented, then cost should still be presented by stating the amount of cost or by stating the amount of the valuation allowance.
4. The composition of the inventory into raw materials, work-in-process, and finished goods.

The following information must be disclosed for property, plant, and equipment:

1. The balance of major classes of depreciable assets (assets classified by nature or function).
2. Accumulated depreciation, either by major classes of depreciable assets or in total.
3. A general description of the methods used in computing depreciation on major classes of depreciable assets.
4. The amount of depreciation expense for the period.

The information regarding inventories and property, plant, and equipment will be disclosed in the body of the financial statements and in the notes which are an integral part of the statements.

CA 24-2

Item 1

The staff auditor reviewing the loan agreement misinterpreted its requirements. Retained earnings are restricted in the amount of €420,000, which was the balance of retained earnings at the date of the agreement. The nature and amount of the restriction should be disclosed in the statement of financial position or a note to the financial statements.

Item 2

Unless cumulative preferred dividends are involved, no recommendation by the CPA is required. Ordinary share dividend policy is understood by readers of financial statements to be discretionary on the part of the board of directors. The company need not commit itself to a prospective ordinary share dividend policy or explain its historical policy in the financial statements, particularly since dividend policy is to be discussed in the president’s letter. If cumulative preference dividends are omitted, this should be disclosed in the financial statements or a note.

Note that the IASB encourages companies to disclose their dividend policy in their annual report. Those that: (1) have earnings but fail to pay dividends or (2) do not expect to pay dividends in the foreseeable future are encouraged to report this information. In addition, companies that show a consistent pattern of paying dividends are encouraged to indicate whether they intend to continue this practice in the future.

Item 3

A competitive development of this nature normally is considered to be the type of subsequent event that provides evidence with respect to a condition that did not exist at the date of the statement of financial position. In some circumstances the auditor might conclude that Ace’s poor competitive situation was evident at year-end. In any event, the development should be disclosed to users of the financial statements because the economic recoverability of the new plant and inventory are in doubt and Ace may incur substantial expenditures to modify its facilities. Because the economic effects probably cannot be determined, the usual disclosure will be in a note to the financial statements. If the present recoverable value of the plant can be determined, Ace should consider disclosure of the company’s revised financial position in a pro-forma statement of financial position, assuming that this event is concluded to be evidence of a condition that did not exist at year-end. (Only if circumstances were such that it was concluded that this condition did exist at year-end should the financial statements for the year ended December 31, 2011, be adjusted for the ascertainable economic effects of this development.)

CA 24-2 (Continued)

Item 4

The lease agreement with Wichita National Bank meets the criteria for a finance lease because it contains a bargain purchase option (a 25-year-life building can be purchased at the end of 10 years for €1). Additionally, unless the fair value of the building is considerably greater than its €2,400,000 cost, the present value of the lease payments probably exceeds 90% of the fair value of the building. The lessee, therefore, must capitalize the leased asset and the related liability in the statement of financial position at the appropriate discounted amount of the future rental payments under the lease agreement. Via note, the lessee must disclose: (1) the gross amount of the leased asset and the accumulated depreciation thereon, (2) the future minimum lease payments as of the latest statement of financial position date, in the aggregate and for each five succeeding fiscal years and for the amount of imputed interest necessary to reduce the lease payments to present value, (3) a general description of the lease arrangement, and (4) the existence of the terms of the purchase option. The income statement should contain a charge for depreciation of the leased asset plus an interest charge.

CA 24-3

Situation 1

When a company sells a product subject to a warranty, it is likely that there will be expenses incurred in future accounting periods relating to revenues recognized in the current period. As such, a liability has been incurred to honor the warranty at the same date as the recognition of the revenue. Based on prior experience or technical analysis, the occurrence of warranty claims can be reasonably estimated and a probable dollar estimate of the liability can be made. The contingent liability for warranties meets the requirements for the accrual of a loss contingency, and the estimated amount of the loss should be reflected in the financial statements. In addition to recording the accrual, it may be advisable to disclose the factors used in arriving at the estimate by means of a note, especially when there is a possibility of a greater loss than was accrued.

Situation 2

Even though: (1) there is a probable loss on the contract, (2) the amount of the loss can be reasonably estimated and (3) the likelihood of the loss was discovered prior to the authorization of issuance of the financial statements, the fact that the contract was entered into subsequent to the date of the financial statements precludes accrual of the loss contingency in financial statements for periods prior to the incurrence of the loss. However, the fact that a material loss has been incurred subsequent to the date of the financial statements but prior to the authorization of issuance should be disclosed by means of a note in the financial statements. The disclosure should contain the nature of the contingency and an estimate of the amount of the probable loss or a range into which the loss will probably fall.

Situation 3

The fact that a company chooses to self-insure the contingency of injury to others caused by its vehicles is not enough of a basis to accrue a loss contingency that has not occurred at the date of the financial statements. An accrual or “reserve” cannot be made for the amount of insurance premium that would have been paid had a policy been obtained to insure the company against this particular risk. A loss contingency may only be accrued if prior to the date of the financial statements a specific event has occurred that will impair an asset or create a liability and an amount related to that specific occurrence can be reasonably estimated. The fact that the company is self-insuring this risk should be disclosed by means of a note to alert the financial statement reader to the exposure created by the lack of insurance.

CA 24-4

1. The financial statements should be adjusted for the expected loss pertaining to the remaining receivable of $240,000. Such adjustment should reduce accounts receivable to their realizable value as of December 31, 2010.

2. Report the fire loss in a footnote to the statement of financial position and refer to it in connection with the income statement, since earnings power is presumably affected.

3. Strikes are considered general knowledge and therefore disclosure is not required. Many auditors, however, would encourage disclosure in all cases.

4. This case is a difficult problem. If this event is of the second type which provides evidence with respect to conditions that did not exist at December 31, 2010, then appropriate disclosures should indicate that:

   (a) Recovery of costs invested in plant and inventory is in doubt.
   (b) The company may incur additional costs to modify the existing facility.
   (c) Due to this situation, future economic events cannot be determined. (If we could determine them, pro-forma information might be appropriate.)

   If it is the type of subsequent event for which the condition existed at December 31, 2010, then the financial statements must be adjusted. The provisions of IFRS accounting related to contingencies would govern if amounts could not be estimated. It should be emphasized in class that no right answer exists for this problem. Judgment must play a major role in determining the adjustment or disclosure necessary for this transaction.

5. Adjust the inventory figure as of December 31, 2010, as required by a market price of $2.00 instead of $1.40, applying the lower-of-cost-or-net realizable value principle. The actual quotation was a transitory error and no purchases had been made at this quotation.

6. Report the action of the new share issue in a footnote to the statement of financial position.

CA 24-5

To: Anthony Reese, Accountant

From: Student

Date: Current date

Subject: Determination of reportable segments for Winsor Corp.

I have analyzed the segment information which you gave me and determined that the funeral, the cemetery, and the real estate segments must be reported separately. The remaining three—the limousine, floral, and dried whey segments—can be combined under the category of <u>other</u>.

To make this determination, I applied three criteria put forth by the IASB to the information provided from 2011. First, a segment must be reported separately if its revenue is greater than or equal to 10 percent of the company's combined revenue. This is the case with both the funeral and the cemetery segments as revenue for both is greater than $40,600 (10 percent of combined revenue).

Second, a segment is considered significant enough to be reported separately if its absolute operating profit or operating loss is 10% or more of the greater, in absolute amount of: (a) the combined operating profit of all segments without an operating loss or (b) the combined operating loss of all segments that incurred a loss. Combined operating profit for all profitable segments totals $96,000. Both the funeral and the cemetery segments have operating profits exceeding 10% of total profits whereas the real estate segment's operating loss in absolute amount is greater than 10 percent of total profits. Thus, all three must be separately reported.

CA 24-5 (Continued)

Third, a segment must be reported separately if its identifiable assets are greater than or equal to 10 percent of the combined identifiable assets for all segments. Again, the funeral, the cemetery, and the real estate segments meet this test. Note that the limousine, floral, and dried whey segments meet none of the above criteria, so they are not reported separately.

When reporting segment information, you must include the following items: revenues, operating profit (loss), identifiable assets, depreciation expense, and amount of capital expenditures. Furthermore, all segment information must be prepared on the same accounting basis as the consolidated entity's.

I hope that this information helps you in determining future reportable segments. If you have any other questions, please contact me.

CA 24-6

(a) Financial reporting for segments of a business enterprise involves reporting financial information on a less-than-total enterprise basis. These segments may be defined along organizational lines, such as divisions, branches, or subsidiaries. Segmentation could be based on areas of economic activity, such as industries in which the enterprise operates, product lines, types of services rendered, markets, types of customers, or geographical areas. In addition to these possible individual definitions of an enterprise's segments, a company may use more than one of the above-cited bases of segmentation.

(b) The reasons for requiring financial data to be reported by segments include the following:

1. They would provide more detailed disclosure of information needed by investors, creditors, and other users of financial statements.
2. Appraisers can evaluate major segments of a business enterprise before considering the business in its entirety.
3. In addition to being useful and desirable, such information is practical to compute.
4. The growth potential of an enterprise can be evaluated by reviewing the growth potential of its major segments.
5. Users can better assess management decisions to drop or add a segment.
6. Projection of future earning power is made more effective when approached on a segment basis because different segments may have differing rates of growth, profitability, and degrees of risk.
7. Managerial ability is better assessed with segment data because managerial responsibility within the enterprise is frequently decentralized.

(c) The possible disadvantages of requiring financial data to be reported by segments include the following:

1. They could be misinterpreted due to the public's general lack of appreciation of the limitations of the somewhat arbitrary bases for most allocations of common costs.
2. They may disguise the interdependence of all the segments.
3. They might result in misleading comparisons of segments of different enterprises.
4. Confidential information would be revealed to competitors about profitable or unprofitable products, plans for new products or entries into new markets, apparent weaknesses that might induce competitors to increase their own efforts to take advantage of the weakness, and the existence of advantages not otherwise indicated.
5. Information thus made available might cause customers to challenge prices to the disadvantage of the company.

CA 24-6 (Continued)

6. Operating data reported by segments might be misleading to those who read them. Segment data prepared for internal management purposes often include arbitrary judgments that are known to those using the data and taken into account in making evaluations. The difficulty of making such background information available and understandable to outside users is considered by many to be insurmountable.
7. The cost of providing segment data for situations in which they are not now prepared could be significant.
8. Uniform reporting categories would be established that might call for additional expense in recording and reporting and that, because arbitrarily defined, might not fairly represent the operations of the enterprise as a going concern. Some fear that establishment of arbitrary reporting requirements might in turn lead to arbitrary rules for business activities to make the required reporting possible.

(d) The accounting difficulties inherent in segment reporting include the following:

1. The basis of segmentation must be established. The various possible bases were cited in answer (a).
2. The transfer prices must be determined. Transfer prices are those charged when one segment deals with another segment of the same enterprise. Various possible transfer prices exist, and the company must select one.
3. The method of reporting segment sales must be defined. A company may or may not include in its sales intercompany transactions with other segments within the enterprise.
4. The computation of segment net income must be defined. The net income may be merely a contribution margin, that is, sales less variable costs, or a more conventional measure of net income. If a contribution-margin approach is used, the variable costs must be identified. If a more conventional measure of net income is used, the treatment of various items for each segment's net income must be established. Such items include the following:
   (a) Determining whether common costs should be allocated to segments.
   (b) Selecting allocation bases if common costs are to be allocated.
   (c) Determining which costs of capital (interest, preference dividends, etc.) should be attributed to segments.
   (d) Determining how income tax should be allocated to segments.
   (e) Determining how a minority interest's share of income, and income from investee companies, should be attributed to segments.
5. The segment information to be reported relating to a statement of financial position and statement of cash flows must be established. This includes allocation of assets to various segments.
6. The treatment of segment information in interim financial reports must be established.
7. The method of presenting segment information in financial statements must be established. Such presentation may be by notes or by separate financial statements.
8. The additional disclosures required, such as accounting policies used, must be established.
9. The effect of annual comparisons must be considered. This would entail retroactive restatement of previously reported segment information presented currently for comparative purposes.

CA 24-7

(a) 1. The company should report its quarterly results as if each interim period is discrete.

2. Under the discrete approach the amounts should be reported as the company's revenue and expenses would be reported as follows on its quarterly report prepared for the first quarter of the 2010–2011 fiscal year:

Sales	$60,000,000
Cost of goods sold	36,000,000
Variable selling expenses	1,000,000
Fixed selling expenses	
Advertising	2,000,000
Other	1,000,000

Sales and cost of goods sold and other expenses receive the same treatment as if this were an annual report. Costs and expenses other than product costs should be charged to expense in interim periods as incurred or allocated among interim periods.

(b) The financial information to be disclosed to its shareholders in its quarterly reports as a minimum include:

1. Statement that the same accounting policies and methods of computation are followed in the interim financial statements as compared with the most recent annual financial statements or, if those policies or methods have been changed, a description of the nature and effect of the change.
2. Explanatory comments about the seasonality or cyclicality of interim operations.
3. The nature and amount of items affecting assets, liabilities, equity, net income, or cash flows that are unusual because of their nature, size, or incidence.
4. The nature and amount of changes in accounting policies and estimates of amounts previously reported.
5. Issuances, repurchases, and repayments of debt and equity securities.
6. Dividends paid (aggregate or per share) separately for ordinary shares and other shares.
7. Segment information, as required by *IFRS 8,* "Operating Segments."
8. Changes in contingent liabilities or contingent assets since the end of the last annual reporting period.
9. Effect of changes in the composition of the company during the interim period, such as business combinations, obtaining or losing control of subsidiaries and long-term investments, restructurings, and discontinued operations.
10. Other material events subsequent to the end of the interim period that have not been reflected in the financial statements for the interim period.

CA 24-8

(a) Acceptable. The use of estimated gross profit rates to determine the cost of goods sold is acceptable for interim reporting purposes as long as the method and rates utilized are reasonable. The company should disclose the method employed and any significant adjustments which result from reconciliations with annual physical inventory.

(b) Acceptable. Pension costs are more identifiable with a time period rather than with the sale of a product or service. Companies are encouraged to make quarterly estimates of those items that usually result in year-end adjustments. Consequently, it is acceptable to allocate this expense to each of the four interim periods.

(c) Acceptable. Any loss in inventory value should be reported when the decline occurs. Any recoveries of the losses on the same inventory in later periods should be recognized as gains in the later interim periods of the same fiscal year. However, the gains should not exceed the previously recorded losses.

CA 24-8 (Continued)

(d) Not acceptable. Gains on the sale of investments would not be deferred if they occurred at year-end. Consequently, they should not be deferred to future interim periods but should be reported in the quarter the gain was realized.

(e) Not acceptable. The annual audit fee is recorded in the interim period paid under the discrete approach.

(f) Not acceptable. Revenue from products sold should be recognized as earned during the interim period on the same basis as followed for the full year. Because the company normally recognizes a sale when shipment occurs, it should recognize the revenue in the second quarter and not defer the revenue recognition. To do otherwise would be an inconsistent application of company accounting policy and violate general accounting rules for revenue recognition.

CA 24-9

(a) Arguments for requiring published forecasts:

1. Investment decisions are based on future expectations; therefore, information about the future would facilitate better decisions.
2. Forecasts are already circulated informally, but are uncontrolled, frequently misleading, and not available equally to all investors. This confused situation should be brought under control.
3. Circumstances now change so rapidly that historical information is no longer adequate as a base of prediction.

(b) The purpose of a safe harbor rule is to provide protection to an enterprise that presents an erroneous projection as long as the projections were prepared on a reasonable basis and were disclosed in good faith. An enterprise's concern with the safe harbor rule is that a jury's definition of reasonable might be at some variance from a company's or, for that matter, the SEC's.

(c) An enterprise's concerns about preparing a forecast are as follows:

1. No one can foretell the future. Therefore forecasts, while conveying an impression of precision about the future, will inevitably be wrong.
2. Organizations will strive only to meet their published forecasts, not to produce results that are in the shareholders' best interest.
3. When forecasts are not proved to be accurate, there will be recriminations and probably legal actions. Even with a safe harbor rule, enterprises are concerned because the definition of reasonable is subjective.
4. Disclosure of forecasts will be detrimental to enterprises because it will fully inform not only investors, but also competitors (foreign and domestic).

CA 24-10

(a) The controller notes that the financial vice president is misrepresenting the financial condition of the company by suggesting that the company has become more efficient when, in fact, the improved ratio is gained through manipulation of estimates. The controller, however, hesitates because estimating does not follow precise, clear-cut rules. The dilemma exists because Lilly is asked to weigh the benefits that may accrue to the company if its profit margin on sales appears much improved against the accountant's normal requirement to present financial information fairly (that is, in a manner that is consistent with previous reporting).

(b) No, the controller should oppose the release of the publicity. The company has not improved its financial condition, and the claim of increased efficiency is not supported by the financial information.

CA 24-10 (Continued)

(c) The favorable media release enhances the current shareholders' position, as well as boosting the image of management. Such publicity may well contribute to an increased share price. Future investors and shareholders are harmed because the media release depicts a misleading perspective on the financial condition of the company.

(d) The controller is responsible for both the accuracy and the clarity of financial reporting. If the media release obscures how an accounting decision has influenced the apparent improvement of the company's financial condition, the controller cannot let this matter slide. Lilly must protest and not let her name be connected to the misinformation.

CA 24-11

(a) The ethical issues involved are profitability, long-term versus short-term performance, and integrity of financial reporting.

(b) Form should not dictate substance. The bonds should be issued when the company needs the cash to help improve its performance. Though ratios may be lower than desired if the bonds are issued immediately, the investors and creditors are served best when the company is performing at the highest possible level. If immediate cash inflow will assist enhanced performance, McElroy should not delay issuance.

*CA 24-12

1.	b, j	4.	b, j	7.	a, e, i
2.	a, e, i	5.	j	8.	b, e, j
3.	e, h, i	6.	e	9.	d, j

FINANCIAL REPORTING PROBLEM

(a) **The specific items M&S discusses in Note 1 are basis of preparation; accounting convention; basis of consolidation; revenue; exceptional items; dividends; pensions; pp&e; intangible assets; investment properties; leasehold prepayments; share-based payments; inventories; foreign currencies; taxation; financial instruments; derivative financial instruments and hedging activities; critical accounting estimates and judgments; and non-GAAP performance measures.**

(b) **M&S reported segments for its UK retail and International retail. International retail was segmented into owned stores and franchised stores. Revenue was segmented into general merchandise and food segments for both UK and International. The UK retail segment is the largest segment. M&S does not report its largest customer.**

(c) **Before, only interim information reported are the provisional dates for interim dividends that will occur in 2008 (after 3/29/08).**

COMPARATIVE ANALYSIS CASE

CADBURY VERSUS NESTLÉ

(a) 1. Cadbury commented on the following list of items in its note on accounting policies:

Note 1 – Nature of Operations and Accounting Policies

- Nature of operations and segmental results
- Accounting convention
- Preparation of financial statements
- Basis of consolidation
- Segmental analysis
- Foreign currencies
- Revenue
- Research and development expenditure
- Advertising costs
- Share-based payments
- Restructuring costs
- Non-trading items
- Earnings per ordinary share
- Goodwill
- Acquisition intangibles
- Software intangibles
- Property, plant and equipment and leases
- Inventories
- Cash and cash equivalents
- Assets held for sale and discontinued operations
- Taxation
- Provisions
- Pensions and other post-retirement benefits
- Financial instruments
- Management performance measures
- Critical accounting policies

2. Nestlé commented on the following list of items in its note on accounting policies:

Note 1 - Accounting Policies

- Accounting convention and accounting standards
- Consolidated companies
- Associates

- **Scope of consolidation**
- **Venture funds**
- **Foreign currencies**
- **Segmental information**
- **Revenue**
- **Net financing cost**
- **Expenses**
- **Taxes**
- **Net other income/(expenses)**
- **Classes of financial instruments**
- **Financial assets**
- **Cash and cash equivalents**
- **Loans and receivables**
- **Held-to-maturity investments**
- **Held-for-trading assets**
- **Undesignated derivatives**
- **Available-for-sale assets**
- **Financial liabilities at amortised cost**
- **Derivative financial instruments**
- **Hedge accounting**
- **Fair value hedges**
- **Cash flow hedges**
- **Net investment hedges**
- **Inventories**
- **Prepayments and accrued income**
- **Fair values**
- **Property, plant and equipment**
- **Leased assets**
- **Business combinations and related goodwill**
- **Intangible assets**
- **Research and development**
- **Impairment of goodwill and indefinite life intangible assets**
- **Impairment of property, plant and equipment and finite life intangible assets**
- **Provisions**
- **Assets held for sale and discontinued operations**
- **Employee benefits**
- **Accruals and deferred income**
- **Dividends**

- **Share-based payment**
- **Contingent assets and liabilities**
- **Events occurring after the statement of financial position date**

(b) Cadbury has four geographic segments – BIMA (Britain, Ireland, Middle East, and Africa), Americas, Europe, and Asia Pacific. Nestlé segments are Zone Europe, Zone Americas, Zone Asia, Oceania, and Africa, Nestle Waters, Nestle Nutrition, Other Food & Beverage, and Pharma.

(c) Both companies received unqualified audit opinions. That is, their financial statements give a true and fair view of the financial position, the results of operations and the cash flows in accordance with IFRS. Deloitte LLP audited Cadbury, while KPMG audited Nestlé. Also, Deloitte audited Cadbury's Director's Remuneration Report.

*FINANCIAL STATEMENT ANALYSIS CASE

RNA INC.

(a) The calculation of selected financial ratios for RNA for the fiscal year 2011 is as follows:

Current ratio $= \dfrac{\text{Current assets}}{\text{Current liabilities}}$

$= \dfrac{\$9,900}{\$6,300}$

$= \underline{\underline{1.57}}$

Acid-test ratio $= \dfrac{\text{Cash + Short-term Investments + Net Receivables}}{\text{Current liabilities}}$

$= \dfrac{\$3,900}{\$6,300}$

$= \underline{\underline{.62}}$

Times interest earned $= \dfrac{\text{Income before interest and taxes}}{\text{Interest expense}}$

$= \dfrac{\$7,060 + \$900}{\$900}$

$= \underline{\underline{8.84}}$

Profit margin on sales $= \dfrac{\text{Net income}}{\text{Net sales}}$

$= \dfrac{\$4,260}{\$30,500}$

$= \underline{\underline{13.97\%}}$

Asset turnover $= \dfrac{\text{Net sales}}{\text{Average total assets}}$

$= \dfrac{\$30{,}500}{(\$17{,}000 + \$16{,}000) \div 2}$

$= \underline{\underline{1.85}}$ **times**

Inventory turnover $= \dfrac{\text{Cost of goods sold}}{\text{Average inventory}}$

$= \dfrac{\$17{,}600}{(\$6{,}000 + \$5{,}400) \div 2}$

$= \underline{\underline{3.09}}$ **times**

(b) **The analytical use of each of the six ratios presented above and what investors can learn about RNA's financial stability and operating efficiency are presented below.**

Current ratio

- **Measures the ability to meet short-term obligations using short-term assets.**

- **RNA's current ratio has declined over the last three years from 1.62 to 1.57. This declining trend, coupled with the fact that it is below the industry average, is not yet a major concern; however, the company should watch it in the future as the ratio assumes that non-cash current assets (particularly inventory) can be quickly converted to cash at or close to book value.**

Acid-test ratio

- **Measures the ability to meet short-term debt using the most liquid assets.**

- **RNA's acid-test ratio has remained stable over the last three years; however, it is still below the industry average. Furthermore, a quick ratio below 1 indicates that RNA may have difficulty meeting its short-term obligations if inventory does not turn over fast enough.**

Times interest earned

- **Measures the ability to meet interest commitments from current earnings. The higher the ratio, the more safety for long-term creditors.**

- **RNA's ratio has been improving over the last three years and is above the industry average. This provides an indication that RNA has been paying down or refinancing debt and/or increasing sales and profits, which indicates long-term stability.**

Profit margin on sales

- **Measures the net income generated by each dollar of sales. It provides some indication of the ability to absorb cost increases or sales declines.**

- **RNA's profit margin has been improving and is currently above the industry average, indicating a trend towards marginal operating efficiency. Furthermore, it improves the ability to absorb soft economic periods, pay down debt, or take on additional debt for expansion.**

Total asset turnover

- **Measures the efficiency of resource use; i.e., the ability to generate sales through the use of assets.**

- **RNA's ratio has been steadily improving and is above the industry average, indicating good use of assets and ability to generate sales.**

Inventory turnover

- **Measures how quickly inventory is sold, as well as how effectively investment in inventory is used. It also provides a basis for determining if obsolete inventory is present or pricing problems exist.**

- **RNA's ratio has been steadily declining and is below the industry average. This slower-than-average situation may indicate a decline in operating efficiency, hidden obsolete inventory, or overpriced stock items.**

(c) Limitations of ratio analysis include:

- **Difficulty making comparisons among firms in the same industry due to accounting differences. Different accounting methods may cause different results in straight-line depreciation versus accelerated methods, Average cost versus FIFO, etc.**

- **The fact that no one ratio is conclusive.**

ACCOUNTING, ANALYSIS, AND PRINCIPLES

ACCOUNTING

(1) Integral Approach

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Sales	$320,000	$600,000	$2,200,000	$480,000
Variable manufacturing costs	32,000	60,000	220,000	48,000
Fixed manufacturing costs	64,000	120,000	440,000	96,000
Variable non-manufacturing costs	28,000	52,500	192,500	42,000
Fixed non-manufacturing costs	96,000	180,000	660,000	144,000
Net income	$100,000	$187,500	$ 687,500	$150,000

Sales = (Number of units X $4.00)
Variable manufacturing costs = (Number of units X $0.40)
Variable non-manufacturing costs = (Number of units X $0.35)
Fixed manufacturing costs = Number of units X ($720,000 ÷ 900,000)
Fixed non-manufacturing costs = Number of units X ($1,080,000 ÷ 900,000)

(2) Discrete Approach

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Sales	$320,000	$600,000	$2,200,000	$480,000
Variable manufacturing costs	32,000	60,000	220,000	48,000
Fixed manufacturing costs	64,000	120,000	440,000	96,000
Variable non-manufacturing costs	28,000	52,500	192,500	42,000
*Fixed non-manufacturing costs	270,000	270,000	270,000	270,000
Net income (Loss)	($ 74,000)	$ 97,500	$1,077,500	$ 24,000

***$1,080,000 ÷ 4**

ANALYSIS

Profit margin on sales = Net income ÷ sales

(1) Integral approach:

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Net income (Loss)	$100,000	$187,500	$687,500	$150,000
Sales	320,000	600,000	2,200,000	480,000
Profit margin on sales	31.3%	31.3%	31.3%	31.3%

(2) Discrete approach:

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Net income (Loss)	$(74,000)	$97,500	$1,077,500	$24,000
Sales	320,000	600,000	2,200,000	480,000
Profit margin on sales	(23.1%)	16.3%	49.0%	5.0%

The integral approach smoothes variation in profit margin on sales across quarters relative to the discrete approach. This smoothing happens because the integral approach allocates fixed costs across quarters according to the sales occurring in the quarter. The discrete approach, however, allocates fixed costs across quarters evenly (an equal amount each quarter). Because the sales vary from quarter-to-quarter, an even allocation of fixed costs to the quarters results in more variation in net income.

PRINCIPLES

IFRS requires companies to follow the discrete approach. However, companies should use the same accounting policies for interim reports and for annual reports.

The concept underlying the integral approach is that an individual quarter is part of a large time interval about which we have more information. In this problem, for example, we know that sales are seasonal. So, we know that a greater proportion of the revenue generating process occurs in the third quarter than in the other quarters. Arguably, then, a greater proportion of the fixed costs for the year should be allocated to the third quarter than to the other quarters. Part of the reason we incur fixed costs at the level we do is so that we can handle the volume of the third quarter. Allocating the same amount of fixed costs to each quarter paints a picture of the firm's profitability across quarters that is arguably inaccurate.

PROFESSIONAL RESEARCH

(a) According to IAS 1, paragraph 117, "An entity shall disclose in the summary of significant accounting policies:

(1) the measurement basis (or bases) used in preparing the financial statements, and

(2) the other accounting policies used that are relevant to an understanding of the financial statements.

(b) (1) A few examples taken from IAS 1:

- **Paragraph 118: It is important for an entity to inform users of the measurement basis or bases used in the financial statements**
- **Paragraph 120: Each entity considers the nature of its operations and the policies that the users of its financial statements would expect to be disclosed for that type of entity**
- **Paragraph 122: An entity shall disclose, in the summary of significant accounting policies or other notes, the judgements, apart from those involving estimations (see paragraph 125), that management has made in the process of applying the entity's accounting policies and that have the most significant effect on the amounts recognised in the financial statements.**
- **Paragraph 124: Some of the disclosures made in accordance with paragraph 122 are required by other IFRSs. For example, IAS 27 requires an entity to disclose the reasons why the entity's ownership interest does not constitute control, in respect of an investee that is not a subsidiary even though more than half of its voting or potential voting power is owned directly or indirectly through subsidiaries. IAS 40 Investment Property requires disclosure of the criteria developed by the entity to distinguish investment property from owner-occupied property and from property held for sale in the ordinary course of business, when classification of the property is difficult.**

PROFESSIONAL SIMULATION

Analysis

The current-ratio increase is a favorable indication as to solvency, but alone tells little about the going-concern prospects of the client. From this ratio change alone, it is impossible to know the amount and direction of the changes in individual accounts, total current assets, and total current liabilities. Also unknown are the reasons for the changes.

The acid-test ratio is an unfavorable indication as to solvency, especially when the current ratio increase is also considered. This decline is also unfavorable to the going-concern prospects of the client because it reflects a declining cash position and raises questions as to reasons for the increases in other current assets, such as inventories.

The increase in the ratio of property, plant, and equipment to equity cannot alone tell anything about either solvency or going-concern prospects. There is no way to know the amount and direction of the changes in the two items. If assets increased, one must know whether the new assets are immediately productive or need further development. A reduction in equity at this point would cause much concern for the creditors of this client.

The decrease in the ratio of sales to equity is in itself an unfavorable indicator because the most likely reason is a sales decline. However, this decline, which is more relevant to going-concern prospects than to solvency, is largely offset by the fact that net income has significantly increased.

The increase in net income is a favorable indicator for both solvency and going-concern prospects although much depends on the quality of receivables generated from sales and how quickly they can be converted into cash. A significant factor here may be that despite a decline in sales, the client's management has been able to reduce costs to produce this increase. Indirectly, the improved income picture may have a favorable impact on solvency and going-concern potential by enabling the client to borrow currently to meet cash requirements.

The 32-percent increase in earnings per share, which is identical to the percentage increase in net income, is an indication that there has probably been no change in the number of ordinary shares outstanding. This in turn indicates that financing was not obtained through the issuance of ordinary shares. It is not possible to reach conclusions about solvency and going-concern prospects without additional information about the nature and extent of financing.

The percentage increases in book value per share demonstrate nothing so far as solvency and going-concern potential are concerned. It is probable that the smaller percentage increase in the current year only reflects the larger base value created in the preceding year. It is not possible to tell from these figures what the dividend policy of the client is or whether there is an increase in net assets which is capable of generating future earnings, thus making it possible to raise capital for current needs by the issue of additional ordinary shares.

The collective implications of these data alone are that the client entity is about as solvent and as viable as a going concern at the end of the current year as it was at the beginning although there may be a need for short-term operating cash.

Explanation

The creditors will probably ask for the information listed below to overcome the limitations inherent in the ratios discussed above and to obtain more evidence to support the conclusions drawn from them.

1. **Additional ratios and other comparative data may be requested. They are likely to include such items as the following:**
   - (a) **Changes in current assets other than quick assets.**
   - (b) **Receivables turnover, inventory turnover, and the number of days it takes to complete the cycle from cash to inventories to receivables to cash.**
   - (c) **Liabilities to equity.**

2. **The creditors will probably want explanations for the changes in ratios during the current year. The client should be prepared to respond to questions about the age and collectibility of the receivables, the condition and salability of the inventories, the cause of the quick-asset position in the current year, the nature of increases in property, plant, and equipment and their potential for providing greater sales or**

cost reductions in the future, the presence of long-term debt and the dates when it must be repaid, and the manner of controlling costs so that a larger net income was shown in the current year. (The comparative financial statements themselves will answer many of these questions and will provide insight into the client's capability of meeting current obligations as well as continuing profitable operations.) The client may also be expected to provide information about future plans and projections.

3. The creditors may also ask for ratios and related information for several recent years. These data may demonstrate trends and can be compared to data for other companies and for the industry.

Although a quick evaluation of a reporting entity can be made using only a few ratios and comparing these with past ratios and industry statistics, the creditors should realize the limitations of such analysis even from the best prepared statements carrying an auditor's unqualified opinion.

A limitation on comparisons with industry statistics or other companies within the industry exists because material differences can be created through the use of alternative (but acceptable) accounting methods. Further, when evaluating changes in ratios or percentages, the evaluation should be directed to the nature of the item being evaluated because very small differences in ratios or percentages can represent significant changes in dollar amounts or trends.

The creditors should evaluate conclusions drawn from ratio analysis in the light of the current status of, and expected changes in, such things as general economic conditions, the client's competitive position, the public's demand (for the product itself, increased quality of the product, control of noise and pollution, etc.), and the client's specific plans.

