



 SCHOLASTIC

# PRIME Mathematics

*Based on Singapore Maths and world's best practice*

**PRIME Tutorial: Getting Started using PR1ME**

**Christine Vale**

Head of Education, Scholastic Australia

BA DipEd GradDip MA MBA

CONTACT US: [prime@scholastic.com.au](mailto:prime@scholastic.com.au)

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# PRIME<sup>™</sup>

## Mathematics

PROVEN TO BE WORLD'S BEST PRACTICE



- Coursebooks
- Practice Books
- Teacher's Guides
- Interactive Whiteboard Edition



**SCHOLASTIC**  
**PRIME**<sup>TM</sup>  
Mathematics

# WHAT IS THE APPROACH USED IN PRIME?



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# Mathematical strands in PRIME

- Numbers and Operations
- Measurement
- Geometry
- Data Analysis
- Algebra (Years 5 and 6)



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# Chapter = topic

## Coursebook 2A

**Chapter 1 Numbers to 1000**

**Chapter 2 Addition and Subtraction without Regrouping**

**Chapter 3 Addition and Subtraction with Regrouping**

**Chapter 4 Length**

**Chapter 5 Mass**

**Chapter 6 Multiplication**

**Chapter 7 Division**

**Chapter 8 Multiplication Tables of 2, 5 and 10**

## Coursebook 2B

**Chapter 9 Addition and Subtraction**

**Chapter 10 Multiplication Tables of 3 and 4**

**Chapter 11 Money**

**Chapter 12 Fractions**

**Chapter 13 Time**

**Chapter 14 Graphs**

**Chapter 15 Plane Shapes**

**Chapter 16 Solid Shapes**



# Developmental continuum

## Scope and Sequence

### Developmental Continuum

	Year/Grade 1	Year/Grade 2	Year/Grade 3
NUMBERS AND OPERATIONS			
Whole Numbers / Place Value	Count within 100.	Count within 1000.	Read and write a number within 10 000 — the numeral and the corresponding number word.
	Read and write a number from 0 to 100 — the numeral and the corresponding number word.	Read and write a number from 0 to 1000 — the numeral and the corresponding number word.	Use number notation and place values (thousands, hundreds, tens, ones).
	Count on and backwards within 100.	Use number notation and place values (hundreds, tens, ones).	Compare and order numbers within 10 000.
	Use number notation and place values (tens, ones).	Compare and order numbers within 1000.	Find the number which is 1, 10, 100 or 1000 more than (or less than) a given number within 10 000.
	Estimate the number of objects in a group of fewer than 100 objects.	Use the symbols '>' and '<' for comparison of numbers.	Identify odd and even numbers.
	Compare the number of objects in two or more sets.	Find the number which is 1, 10 or 100 more than (or less than) a given number within 1000.	
	Compare and order numbers within 100.		
	Find the number which is 1 or 10 more than (or less than) a given number within 100.		
	Make a number story to illustrate a number bond for 5 to 10.		
	Write a number bond for 5 to 10.		
Addition / Subtraction	Name a position using an ordinal number from 1st to 10th and position words.		
	Use picture cutouts (or other manipulatives) to illustrate the meanings of addition and subtraction.	Add or subtract within 1000.	Associate the terms 'sum' and 'difference' with addition and subtraction respectively.
	Make a number story for a given addition or subtraction sentence.	Use a part-whole bar model or a comparison bar model to represent an addition or subtraction situation.	Add or subtract within 10 000.
	Write a number sentence for a given situation involving addition or subtraction.	Solve up to 2-step word problems involving addition and subtraction.	Use a part-whole bar model or a comparison bar model to represent an addition or subtraction situation.

	Year/Grade 1	Year/Grade 2	Year/Grade 3
NUMBERS AND OPERATIONS (continued)			
Addition / Subtraction (continued)	Observe the identity and commutative properties of addition.	Find the missing part in an addition sentence.	Solve up to 2-step word problems involving addition and subtraction.
	Observe the answer when 0 is subtracted from a number.	Find the missing part or whole in a subtraction sentence.	Mentally add two 2-digit whole numbers with regrouping.
	Write a family of four addition and subtraction facts for a given number bond.	Mentally add: - a 1-digit whole number to a 2-digit whole number with regrouping - two 2-digit whole numbers without regrouping - ones, tens or hundreds to a 3-digit whole number - 98 or 99 to a number up to 3 digits	Mentally subtract a 2-digit whole number from another 2-digit whole number with regrouping.
	Identify a doubles fact.	Mentally subtract: - a 1-digit whole number from a 2-digit whole number with regrouping - a 2-digit whole number from another 2-digit whole number without regrouping - ones, tens or hundreds from a 3-digit whole number - 98 or 99 to a 3-digit whole number	
	Add or subtract within 100.		
	Solve a 1-step word problem involving addition or subtraction of numbers within 20.		
	Mentally add: - two or three 1-digit whole numbers - a 1-digit whole number to a 2-digit whole number - tens to a 2-digit whole number		
	Mentally subtract: - a 1-digit whole number from another 1-digit whole number - a 1-digit whole number from a 2-digit whole number - tens from a 2-digit whole number		

# Developmental continuum

## Developmental Continuum

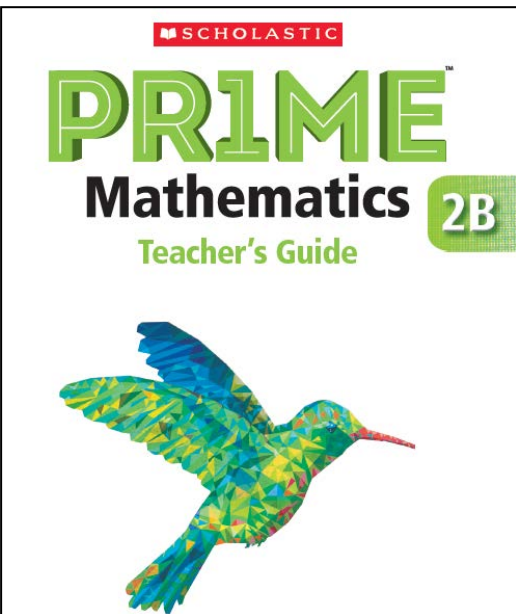
	Year/Grade 1	Year/Grade 2	Year/Grade 3
<b>NUMBERS AND OPERATIONS</b>			
<b>Whole Numbers / Place Value</b>	Count within 100.	Count within 1000.	Read and write a number within 10 000 — the numeral and the corresponding number word.
	Read and write a number from 0 to 100 — the numeral and the corresponding number word.	Read and write a number from 0 to 1000 — the numeral and the corresponding number word.	Use number notation and place values (thousands, hundreds, tens, ones).
	Count on and backwards within 100.	Use number notation and place values (hundreds, tens, ones).	Compare and order numbers within 10 000.
	Use number notation and place values (tens, ones).	Compare and order numbers within 1000.	Find the number which is 1, 10, 100 or 1000 more than (or less than) a given number within 10 000.
	Estimate the number of objects in a group of fewer than 100 objects.	Use the symbols '>' and '<' for comparison of numbers.	Identify odd and even numbers.
	Compare the number of objects in two or more sets.	Find the number which is 1, 10 or 100 more than (or less than) a given number within 1000.	
	Compare and order numbers within 100.		
	Find the number which is 1 or 10 more than (or less than) a given number within 100.		
	Make a number story to illustrate a number bond for 5 to 10.		
	Write a number bond for 5 to 10.		
<b>Addition / Subtraction</b>	Use picture cutouts (or other manipulatives) to illustrate the meanings of addition and subtraction.	Add or subtract within 1000.	Associate the terms 'sum' and 'difference' with addition and subtraction respectively.
	Make a number story for a given addition or subtraction sentence.	Use a part-whole bar model or a comparison bar model to represent an addition or subtraction situation.	Add or subtract within 10 000.
	Write a number sentence for a given situation involving addition or subtraction.	Solve up to 2-step word problems involving addition and subtraction.	Use a part-whole bar model or a comparison bar model to represent an addition or subtraction situation.

## Australian Curriculum: Mathematics

Strand	Sub-strand	Yr		Content Description
Number and Algebra	Number and place value	Yr2	ACMN-A029	Explore the connection between addition and subtraction
Number and Algebra	Number and place value	Yr2	ACMN-A030	Solve simple addition and subtraction problems using a range of efficient mental and written strategies
Number and Algebra	Number and place value	Yr3	ACMN-A055	Recall addition facts for single-digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation

A detailed curriculum alignment from PRIME to the Australian Curriculum: Mathematics is available.

# Chapter introduction



## Chapter 9 Addition and Subtraction

### Note for Teachers

In this chapter, students learn how to find missing numbers in addition and subtraction sentences. To do this, they have to possess a firm grasp of the inverse relationship between addition and subtraction. Students also learn how to make 100 with two numbers by counting on or using place value.

Various mental addition and subtraction strategies are introduced here. Students learn how to regroup numbers to help them calculate the answers to addition and subtraction questions. These build upon the concepts of addition or subtraction with and without regrouping. Students may draw number bonds to help them in the initial stages, but eventually, they are expected to be able to do the addition and subtraction independently.



# Consistent Pedagogy



PRIME Chapter

Let's  
Remember

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best practice

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# Consistent pedagogy

9

## Addition and Subtraction

Let's Remember

1.  $8 + 7 = 15$   
 $7 + \square = 15$   
 $15 - 8 = \square$   
 $15 - 7 = \square$ 

These number sentences form a fact family.
  
2. Add 52 and 3.  
 $52 + 3 = \square$ 

$$\begin{array}{r} 52 \\ + 3 \\ \hline 55 \end{array}$$
  
3. Add 58 and 80.  
 $58 + 80 = \square$ 

$$\begin{array}{r} 58 \\ + 80 \\ \hline 138 \end{array}$$

4.
 

$$\begin{array}{|c|c|} \hline 25 & 43 \\ \hline \end{array}$$

This is a part-whole bar model. We add the parts to find the whole.

 $25 + 43 = \square$ 

$$\begin{array}{r} 25 \\ + 43 \\ \hline 68 \end{array}$$
  
5. Subtract 3 from 45.  
 $45 - 3 = \square$ 

$$\begin{array}{r} 45 \\ - 3 \\ \hline 42 \end{array}$$
  
6. Subtract 30 from 54.  
 $54 - 30 = \square$ 

$5 \text{ tens} - 3 \text{ tens} = \square \text{ tens}$
  
7.
 

$$\begin{array}{|c|c|} \hline 84 & \\ \hline \end{array}$$

This is a part-whole bar model. We subtract one part from the whole to find the other part.

 $84 - 52 = \square$ 

$$\begin{array}{r} 84 \\ - 52 \\ \hline 32 \end{array}$$

Let's Remember is formative assessment for new learning.

# Consistent pedagogy



**9 Addition and Subtraction**

**Remember**

1.  $6 + 7 = 15$   
 $7 + 6 = 15$   
 $15 - 6 = 9$   
 $15 - 7 = 8$

2. Add 52 and 3.  
 $52 + 3 = 55$

3. Add 58 and 80.  
 $58 + 80 = 138$

4.  $25 + 43 = 68$

5. Subtract 3 from 45.  
 $45 - 3 = 42$

6. Subtract 30 from 54.  
 $54 - 30 = 24$

7.  $84 - 52 = 32$

In the Teacher's Guide, each concept being assessed and where it is taught is identified.

## Let's Remember

### Recall:

1. Writing a family of four addition and subtraction facts (CB 1A Chapter 4)
2. Adding a 1-digit number and a 2-digit number without regrouping (CB 1B Chapter 19)
3. Adding within 1000 with regrouping (CB 2A Chapter 3)
4. Using a part-whole bar model to represent an addition situation (CB 2A Chapter 2)
5. Subtracting a 1-digit number from a 2-digit number without regrouping (CB 1B Chapter 19)
6. Subtracting tens from a 2-digit number (CB 1B Chapter 19)
7. Using a part-whole bar model to represent a subtraction situation (CB 2A Chapter 2)

# Consistent Pedagogy



PRIME Chapter

PRIME Lesson

## **Lesson 1 Finding the Missing Number**

**You will learn to...**

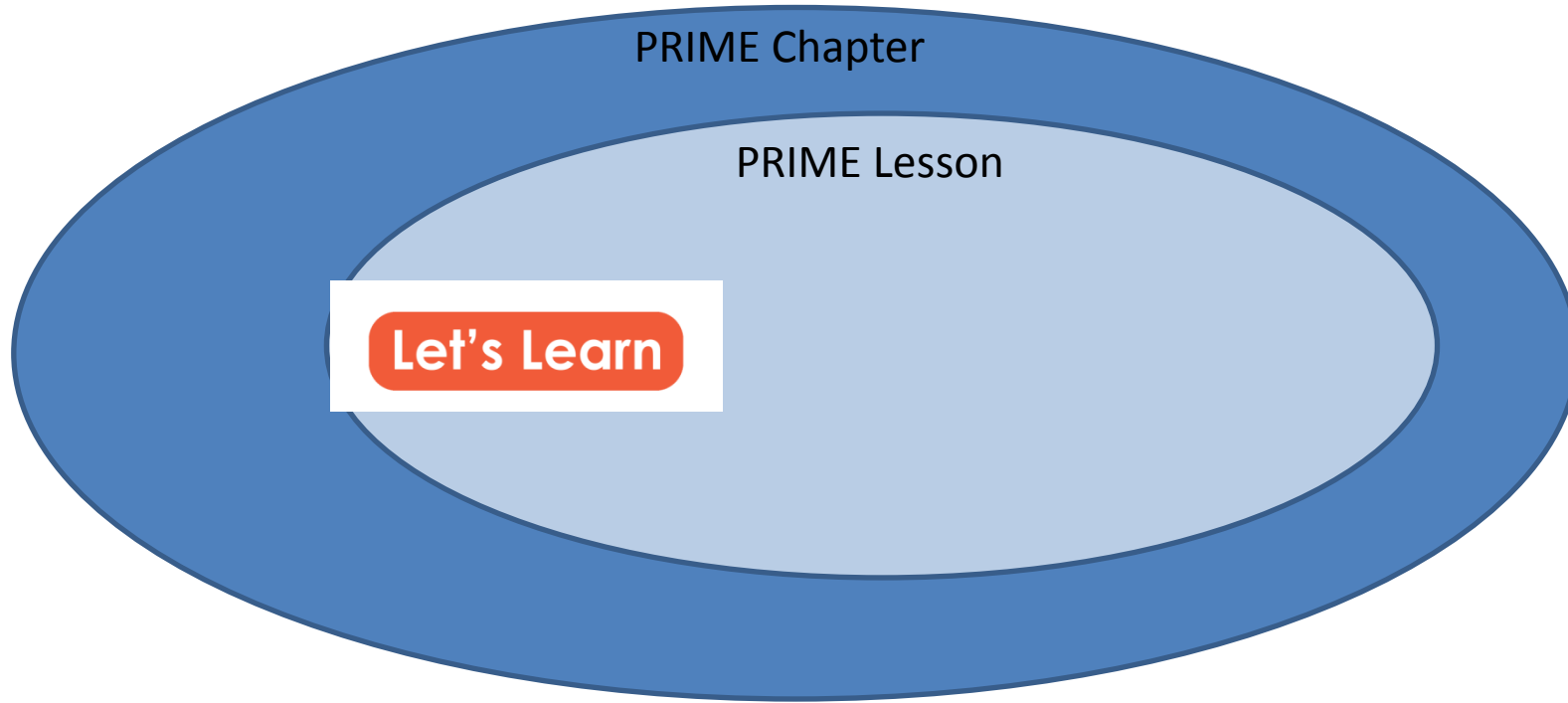
- find the missing number in an addition or subtraction sentence
- make 100



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# Consistent pedagogy

Let's Learn

CONCRETE

PICTORIAL

ABSTRACT

## Lesson 1 Finding the Missing Number

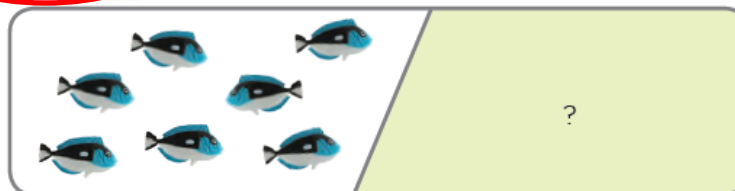
You will learn to...

- find the missing number in an addition or subtraction sentence
- make 100

### Finding the missing part in an addition sentence

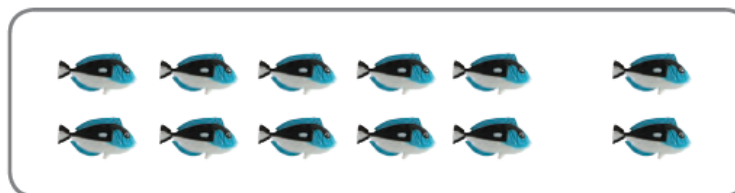
Let's Learn

Math  
Lab



part

part



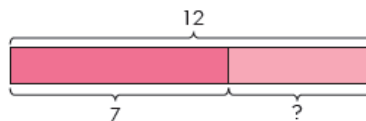
whole

$$7 + \square = 12$$

7 and  $\square$  make 12.



Picture  
It



Let's draw a bar model  
to find the missing part.

$\frac{12}{3}$

$$12 - 7 = \square$$

$$\text{So, } 7 + \square = 12.$$

To find one part, we subtract.



# Consistent pedagogy

**Math  
Lab**

Hands-on CONCRETE  
experiences

## Lesson 1 Finding the Missing Number

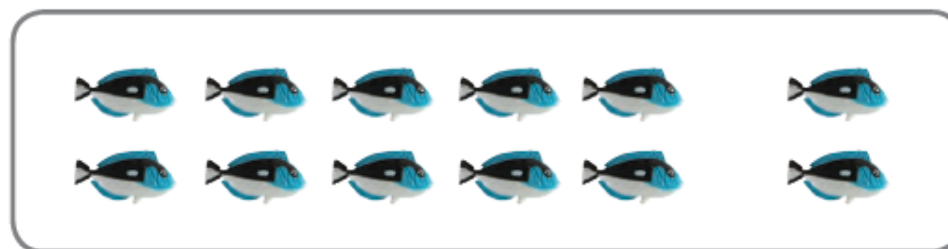
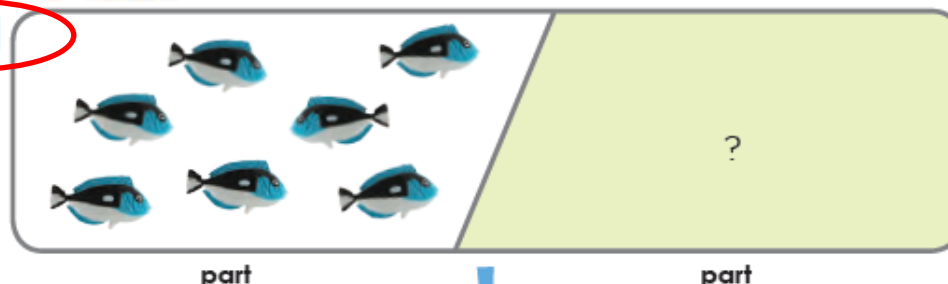
**You will learn to...**

- find the missing number in an addition or subtraction sentence
- make 100

**Finding the missing part in an addition sentence**

**Let's Learn**

Math  
Lab



$$7 + \square = 12$$

7 and  $\square$  make 12.



# Developing metacognition

Lesson objectives are clearly stated for students

## Lesson 1 Finding the Missing Number

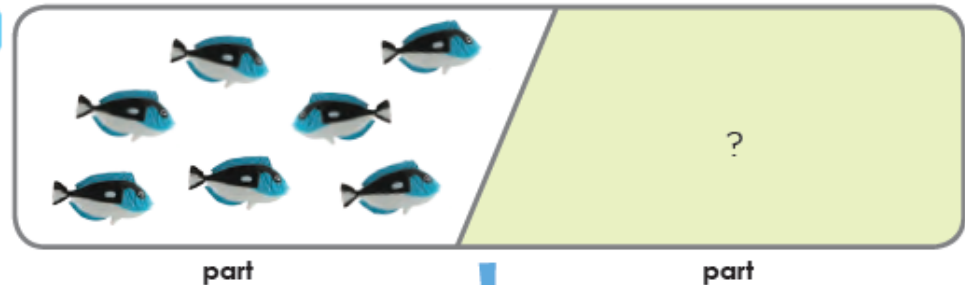
You will learn to...

- find the missing number in an addition or subtraction sentence
- make 100

### Finding the missing part in an addition sentence

Let's Learn

Math Lab



$$7 + \square = 12$$

7 and  $\square$  make 12.



Thought bubbles model mathematical thinking

# Consistent pedagogy and metacognition

**Lesson 1 Finding the Missing Number**

**You will learn to...**

- find the missing number in an addition or subtraction sentence
- make 100

**Finding the missing part in an addition sentence**

**Let's Learn**

7 +  $\square$  = 12

7 and  $\square$  make 12.

12

7

$\square$

Let's draw a bar model to find the missing part.

To find one part, we subtract.

$12 - 7 = \square$

So,  $7 + \square = 12$

**Modelled questions and mathematical thinking.**

## **Let's Learn** Finding the missing part in an addition sentence

### **Objective:**

- To find the missing part in an addition sentence

### **Materials:**

- Connecting cubes (blue, red and green)

### **Resource:**

- CB: pp. 9–10

## **Math Lab**

Have students get into groups of four. Distribute some connecting cubes (blue, red and green) to each group. Have each group set aside 12 green and 7 blue connecting cubes. Ask them to lay the cubes on their tables as follows:



**Ask:** How many green cubes are there? (12) How many blue cubes are there? (7) How many red cubes do we need to join to the blue cubes to make 12 cubes? (5)

Have each group check by connecting 5 red cubes to the blue cubes.

**Say:** So, 7 and 5 make 12.

Guide students through the example on CB p. 9.

Relate the activity with the connecting cubes to the picture in the coursebook.

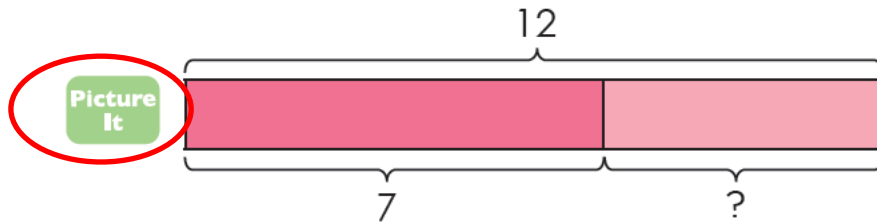
**Say:** We have 7 fish. We add 5 more fish to get 12 fish.

# Consistent pedagogy and metacognition



**Picture  
It**

PICTORIAL representation



Let's draw a bar model  
to find the missing part.

To find one part, we subtract.



Mathematical thinking is  
modelled in the speech bubbles

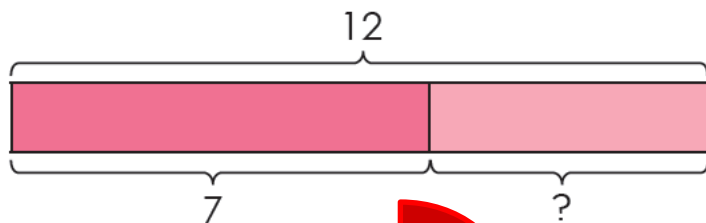


# Consistent pedagogy



ABSTRACT notation

Picture  
It



$$12 - 7 = \square$$

$$\text{So, } 7 + \square = 12.$$

Let's draw a bar model  
to find the missing part.

To find one part, we subtract.



Link PICTORIAL to ABSTRACT

# Concrete – pictorial – abstract

Concrete  
+  
Pictorial  
+  
Abstract

Math  
Lab

Picture  
It

1 2 4  
3 +

## Lesson 1 Finding the Missing Number

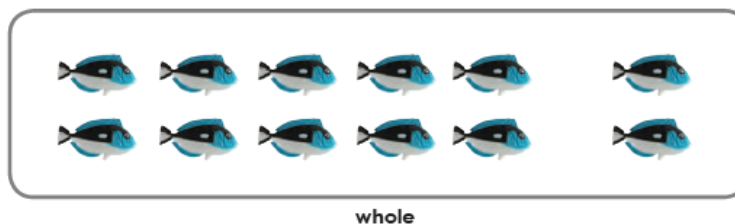
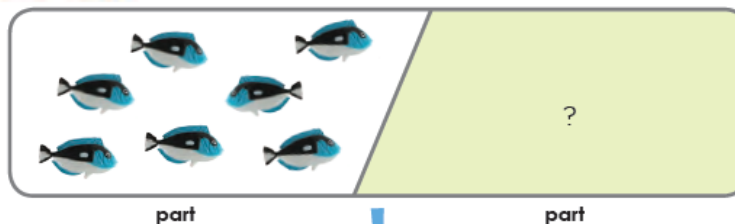
You will learn to...

- find the missing number in an addition or subtraction sentence
- make 100

### Finding the missing part in an addition sentence

Let's Learn

Math  
Lab

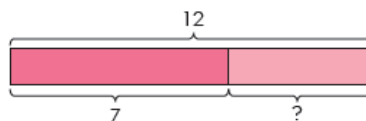


$$7 + \square = 12$$

7 and  $\square$  make 12.



Picture  
It



1 2 4  
3 +

$$12 - 7 = \square$$

$$\text{So, } 7 + \square = 12.$$

Let's draw a bar model  
to find the missing part.

To find one part, we subtract.



# Concrete – pictorial – abstract



**Lesson 1 Finding the Missing Number**

**You will learn to...**

- find the missing number in an addition or subtraction sentence
- make 100

**Finding the missing part in an addition sentence**

**Let's Learn**

**Concrete**

part part

whole

$7 + \square = 12$

7 and  $\square$  make 12.

**Pictorial**

Let's draw a bar model to find the missing part.

**Abstract**

$12 - 7 = \square$

So,  $7 + \square = 12$ .

To find one part, we subtract.

**Picture It**

$$\begin{array}{r} 12 \\ 7 \\ \hline 5 \end{array}$$

Draw the part-whole bar model as shown on CB p. 9.

**Write:**  $7 + \underline{\quad\quad} = 12$

Elicit the answer from students. (5)

**Say:** *To find the missing part, we can also subtract 7 from 12.*

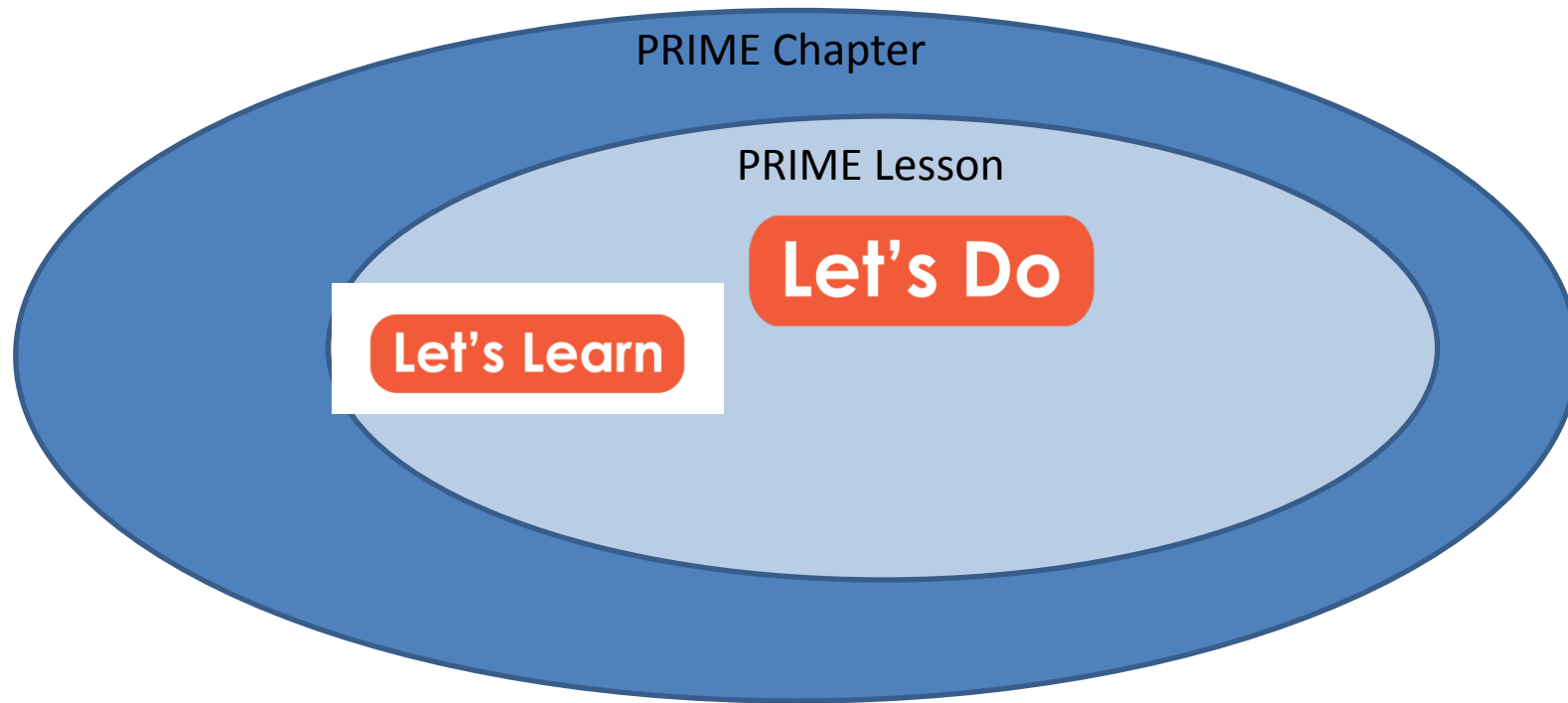
**Write:**  $12 - 7 = \underline{\quad\quad}$

Elicit the answer from students. (5) Have students check by recalling related addition and subtraction facts.

**Ask:** *Are  $7 + 5 = 12$  and  $12 - 7 = 5$  from the same fact family?* (Yes)

Point out to students that they can use subtraction to find the missing part in an addition sentence.

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# Guided and metacognitive support

Concrete  
+  
Pictorial  
+  
Abstract

Thought bubbles  
for mathematical  
thinking models

## Let's Do

1. Complete the number sentences.

a)



part

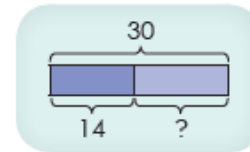


part



whole

$$14 + \underline{\hspace{2cm}} = 30$$



To find one part,  
we subtract.

$$30 - 14 = \underline{\hspace{2cm}}$$



b)  $4 + \underline{\hspace{2cm}} = 13$

c)  $9 + \underline{\hspace{2cm}} = 39$

d)  $16 + \underline{\hspace{2cm}} = 52$

e)  $24 + \underline{\hspace{2cm}} = 89$

f)  $\underline{\hspace{2cm}} + 8 = 15$

g)  $\underline{\hspace{2cm}} + 14 = 60$

h)  $\underline{\hspace{2cm}} + 17 = 65$

i)  $\underline{\hspace{2cm}} + 52 = 90$

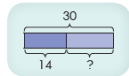
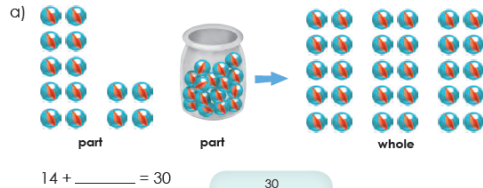


# Teacher support



## Let's Do

1. Complete the number sentences.



To find one part,  
we subtract.  
 $30 - 14 = \underline{\hspace{2cm}}$



b)  $4 + \underline{\hspace{2cm}} = 13$

c)  $9 + \underline{\hspace{2cm}} = 39$

d)  $16 + \underline{\hspace{2cm}} = 52$

e)  $24 + \underline{\hspace{2cm}} = 89$

f)  $\underline{\hspace{2cm}} + 8 = 15$

g)  $\underline{\hspace{2cm}} + 14 = 60$

h)  $\underline{\hspace{2cm}} + 17 = 65$

i)  $\underline{\hspace{2cm}} + 52 = 90$

## Let's Do

Task 1 provides practice on finding the missing part in a number sentence using subtraction.

Task 1 (a) provides pictorial guidance in the form of a part-whole bar model and demonstrates to students that they can subtract one part from the whole to find the other missing part.

Tasks 1 (b)–1 (i) require students to find the missing numbers independently. Help students by drawing out the bar models if necessary.

# Each lesson has several learning cycles

Concrete  
+  
Pictorial  
+  
Abstract

## Finding the missing whole in a subtraction sentence

Let's Learn

Math Lab



whole



part



part

How many apples were there at first?

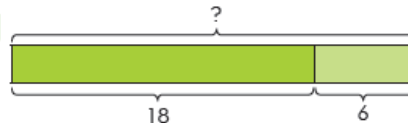
$\square - 6 = 18$

Models of  
mathematical  
thinking



Let's draw a bar model to find the missing whole.

Picture It



$18 + 6 = \square$

So,  $\square - 6 = 18$ .

There were  $\square$  apples at first.

To find the whole, we add.



# Each lesson has several learning cycles

Concrete  
+  
Pictorial  
+  
Abstract

## Let's Do

1. Complete the number sentences.

a)



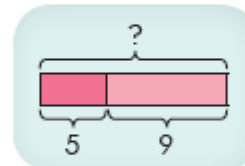
whole



part



part



To find the whole,  
we add.

$$5 + 9 = \underline{\quad}$$

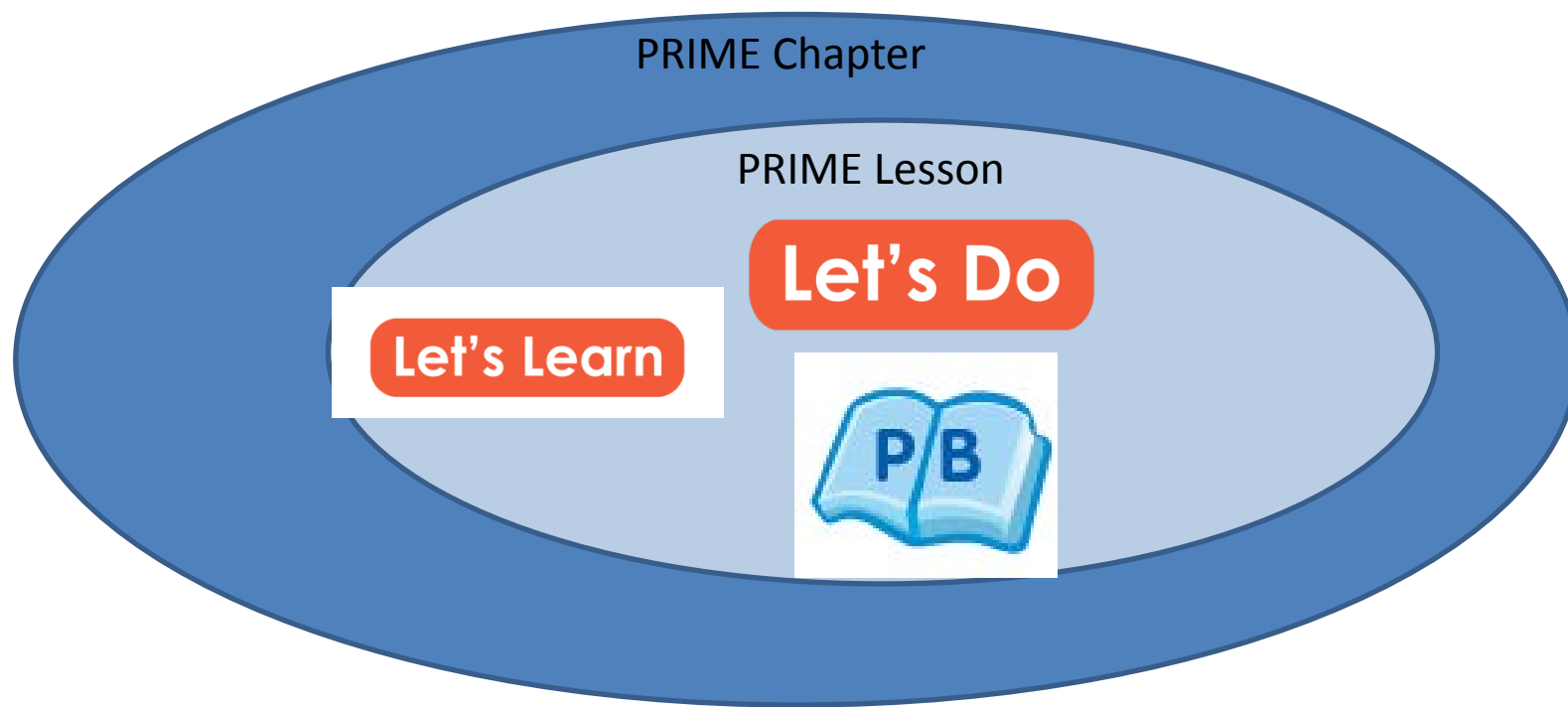
$$\underline{\quad} - 9 = 5$$

b)  $\underline{\quad} - 7 = 10$

c)  $\underline{\quad} - 16 = 40$

Mathematical  
thinking

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# Practice Book for mastery and formative assessment



## Let's Do

1. Complete the number sentences.

a)



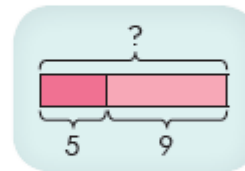
whole



part



part



To find the whole,  
we add.

$$5 + 9 = \underline{\quad}$$

$$\underline{\quad} - 9 = 5$$



## Chapter 9: Exercise 1



# Practice Book for mastery and formative assessment



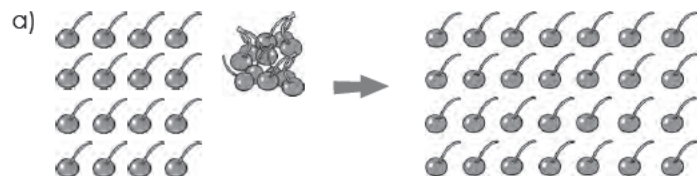
## Chapter 9: Exercise 1

### 9

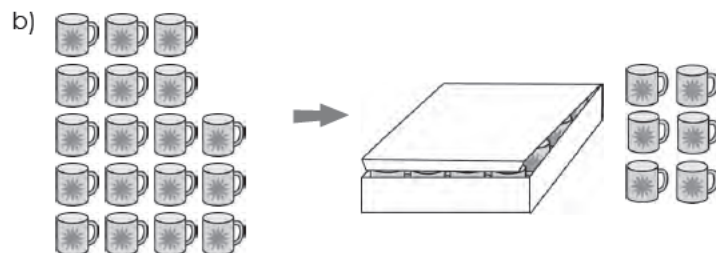
## Addition and Subtraction

### Exercise 1 Finding the Missing Number

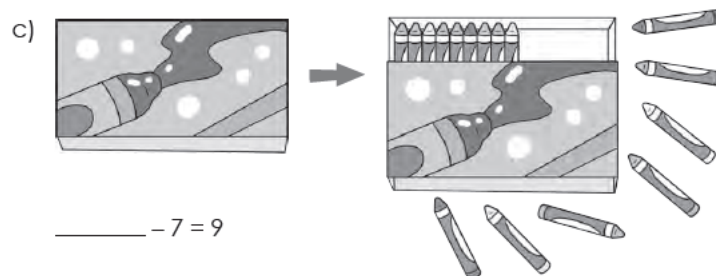
1. Complete the number sentences.



$$16 + \underline{\quad} = 28$$

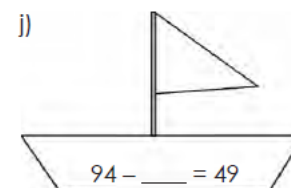
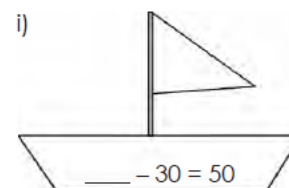
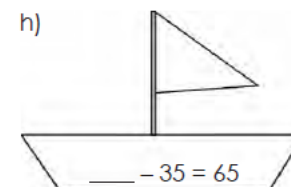
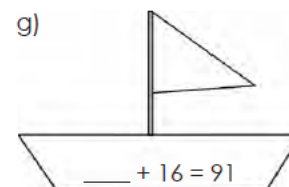
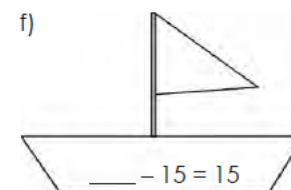
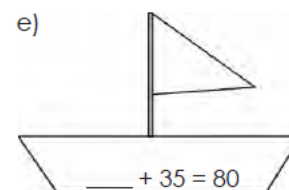
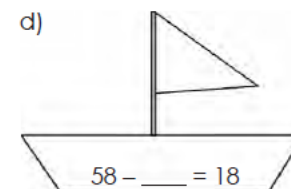
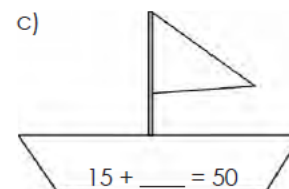
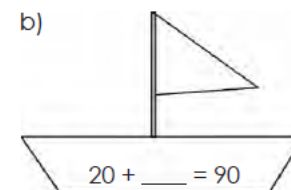
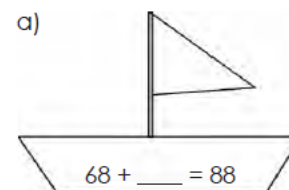


$$18 - \underline{\quad} = 6$$



$$\underline{\quad} - 7 = 9$$

2. Complete the number sentences.




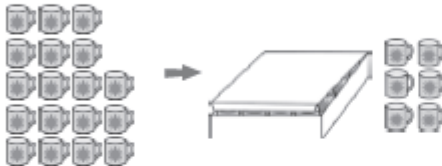
# Practice Book for mastery and formative assessment

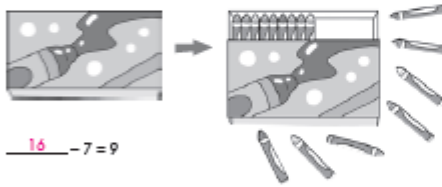
## 9 Addition and Subtraction

### Exercise 1 Finding the Missing Number

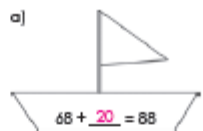
1. Complete the number sentences.


a)   $16 + \underline{12} = 28$


b)   $18 - \underline{12} = 6$

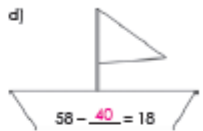
c)   $\underline{16} - 7 = 9$

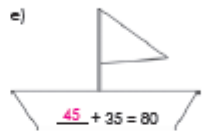
2. Complete the number sentences.


a)   $68 + \underline{20} = 88$

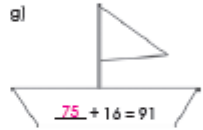
b)   $20 + \underline{70} = 90$

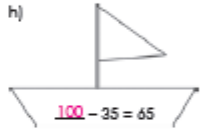
c)   $15 + \underline{35} = 50$


d)   $58 - \underline{40} = 18$

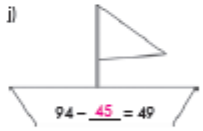
e)   $\underline{45} + 35 = 80$

f)   $\underline{20} - 15 = 15$

g)   $\underline{75} + 16 = 91$

h)   $\underline{100} - 35 = 65$

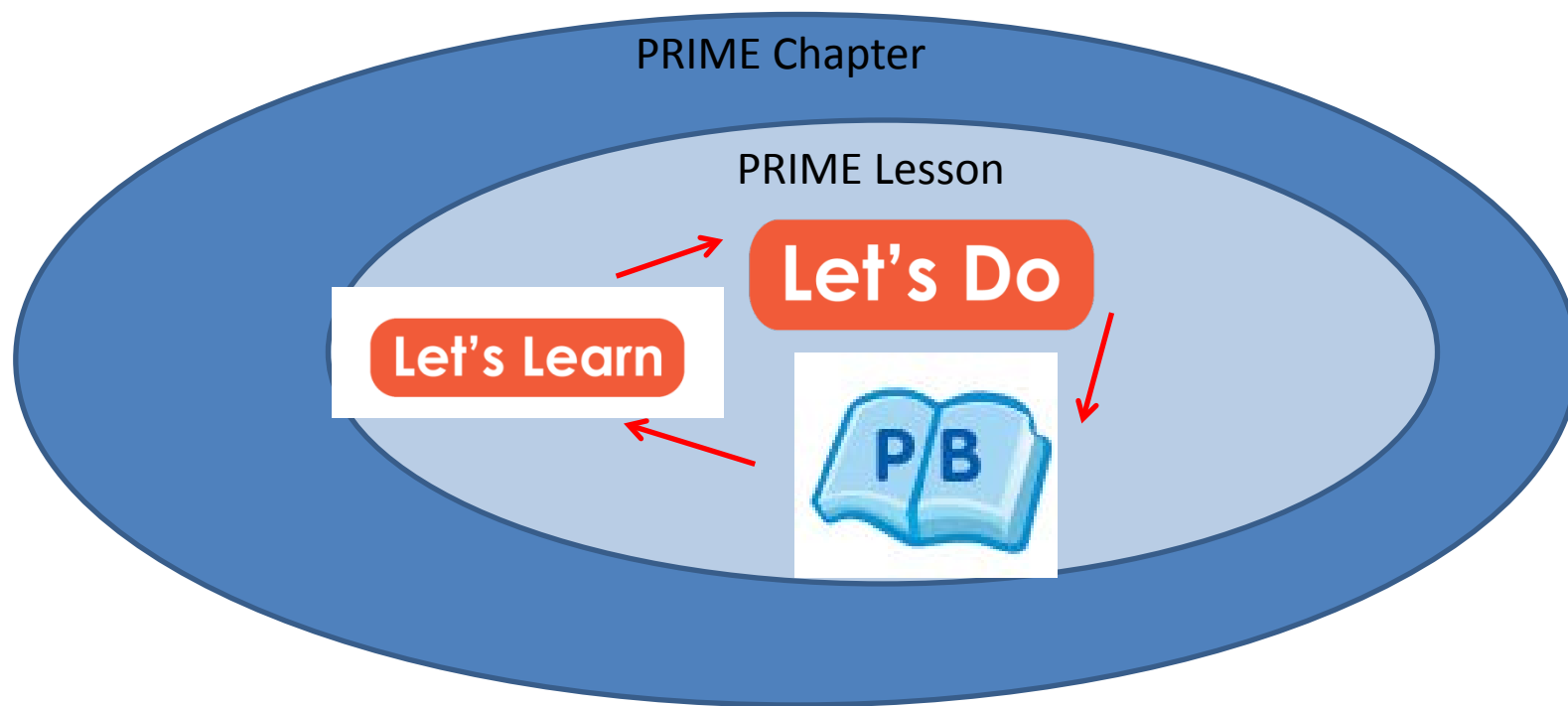
i)   $\underline{80} - 30 = 50$

j)   $94 - \underline{45} = 49$

### Practice Book Exercise 1

Task	Objectives	Skills
1	To find the missing number in an addition or subtraction sentence	Students are to identify the whole and parts in an addition or subtraction sentence. Pictorial guidance is given; the whole and its parts are shown. Students are able to find the missing number by counting the number of items.
2	To find the missing number in an addition or subtraction sentence	This task provides advanced practice on finding the missing number in an addition or subtraction sentence without pictorial guidance. Students are expected to use the part-whole method to find the missing part, using either subtraction or addition.

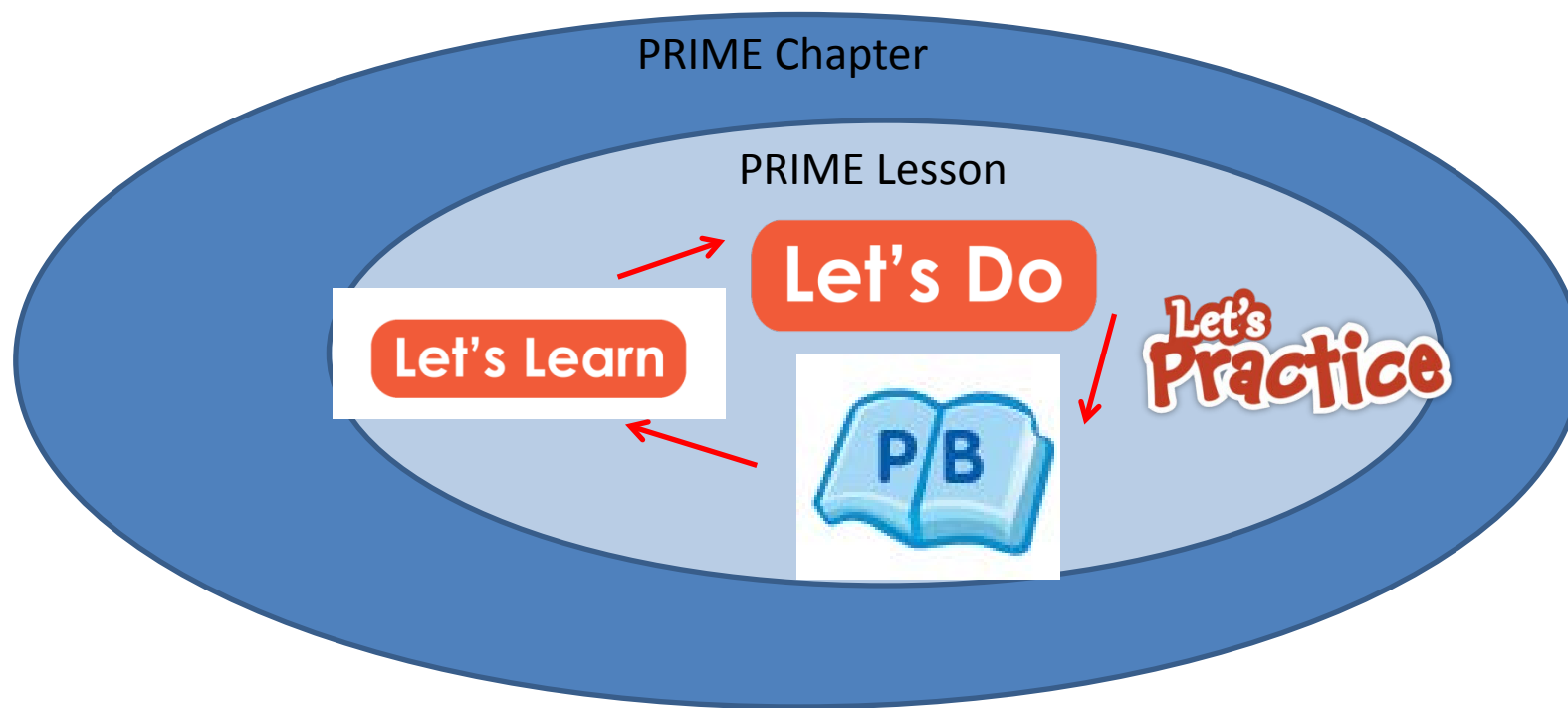
# Consistent Pedagogy



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# Consistent Pedagogy



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# Summative Assessment in the Coursebook



## Practice 1

1. Complete the number sentences.

a)  $\_\_\_ + 25 = 40$

b)  $23 - \_\_\_ = 6$

c)  $\_\_\_ + 17 = 56$

d)  $43 - \_\_\_ = 21$

e)  $58 + \_\_\_ = 72$

f)  $\_\_\_ - 79 = 11$

g)  $46 + \_\_\_ = 100$

h)  $\_\_\_ - 18 = 54$

i)  $\_\_\_ + 25 = 100$

j)  $100 - \_\_\_ = 93$

k)  $63 + \_\_\_ = 100$

l)  $100 - \_\_\_ = 57$

2. Subtract.

a)  $100 - 38$

b)  $100 - 99$

c)  $100 - 98$

d)  $100 - 4$

e)  $100 - 9$

f)  $100 - 3$

## Practice 1

Task 1 provides practice on finding the missing number in an addition or subtraction sentence.

Tasks 1(g) and 1(i)–1(l) require students to complete the number sentences by making 100.

Task 2 provides practice on solving a subtraction sentence by making 100.

# Summarizing concepts and skills taught

## Chapter Wrap-up

Reiterate the following points:

- To find a missing part in an addition sentence, we subtract.
- To find a missing part in a subtraction sentence, we subtract.
- To find the missing whole in a subtraction sentence, we add.
- We can count on or use place value to make 100.
- We can use different strategies to do mental addition and subtraction (Refer to TR9.2 and TR9.3).



# Summative Assessment in the Practice Book



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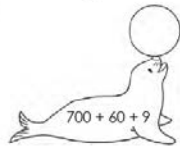
# Summative Assessment in the Practice Book



## Review 4

1. Write the missing numbers.

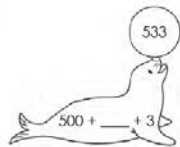
a)



b)



c)

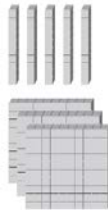


d)



2. Write the numbers.

a)



b)



3. Write the missing numbers.

a)



b)



c)



d)



e)



f)



g)

4. Draw arrows to join the numbers in order. Begin with the smallest.

789

879

889

978

897

5. Complete the number sentences.

a)  $68 + \underline{\quad} = 88$

b)  $58 - \underline{\quad} = 18$

c)  $\underline{\quad} - 15 = 15$

d)  $\underline{\quad} + 16 = 91$

6. Fill in the blanks.

a)  $56 + \underline{\quad} \rightarrow 100 \xrightarrow{+} 400$   
 $56 + \underline{\quad} = 400$   
 $400 - 56 = \underline{\quad}$

b)  $78 + \underline{\quad} \rightarrow 100 \xrightarrow{+} 140$   
 $78 + \underline{\quad} = 140$   
 $140 - 78 = \underline{\quad}$

7. Add or subtract mentally.

a)  $47 + 8 = \underline{\quad}$

b)  $84 - \underline{\quad} = \underline{\quad}$

c)  $53 + 21 = \underline{\quad}$

d)  $98 - \underline{\quad} = \underline{\quad}$

8. Add or subtract mentally.

a)  $726 + 70 = \underline{\quad}$

b)  $374 - \underline{\quad} = \underline{\quad}$

c)  $263 + 500 = \underline{\quad}$

d)  $648 - \underline{\quad} = \underline{\quad}$

e)  $168 + 7 = \underline{\quad}$

f)  $584 - \underline{\quad} = \underline{\quad}$

g)  $432 + 90 = \underline{\quad}$

h)  $310 - \underline{\quad} = \underline{\quad}$

Regular reviews of multiple concepts

9. Add or subtract mentally.

a)  $237 + 99 = \underline{\quad}$

b)  $183 - 99 = \underline{\quad}$

c)  $304 - 98 = \underline{\quad}$

d)  $535 + 98 = \underline{\quad}$

10. Complete the number patterns.

a) 2, 4, 6, , , , ,

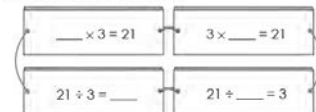
b) 3, 6, 9, , , , ,

c) 4, 8, 12, , , , ,

d) 5, 10, 15, , , , ,

e) 10, 20, 30, , , , ,

11. Fill in the missing numbers.



Solve the word problems. Draw bar models to help you. Show your work clearly.

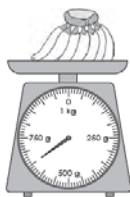
12. Ming has 99 seashells. His friend gives him another 26 seashells. How many seashells does Ming have now?

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

Ming has  $\underline{\quad}$  seashells now.

13. Sue collected 135 stickers. Lin collected 45 less stickers than Sue. How many stickers did Lin collect?

14. A mango is 200 grams lighter than the bananas. Find the mass of the mango.



15. George walked from his house to the post office. After walking 350 meters, he was 250 meters away from the post office. How far was the post office from his house?



# Teacher's Guide lists concepts reviewed

## Review 4

## Answers

1. Write the missing numbers.

a)



b)



c)

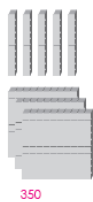


d)



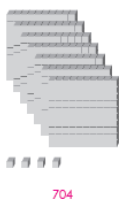
2. Write the numbers.

a)



350

b)



704

3. Write the missing numbers.

a)



b)



c)



d)



e)



f)



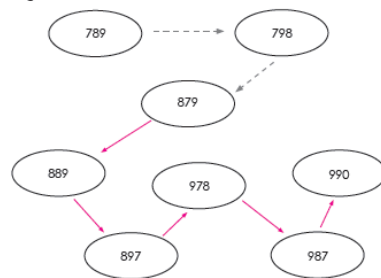
g)



h)



4. Draw arrows to join the numbers in order. Begin with the smallest.



5. Complete the number sentences.

a)  $68 + 20 = 88$

b)  $58 - 40 = 18$

c)  $30 - 15 = 15$

d)  $75 + 16 = 91$

6. Fill in the blanks.

a)  $56 + 44 = 100$   $100 + 300 = 400$   
 $56 + 344 = 400$   
 $400 - 56 = 344$

b)  $78 + 22 = 100$   $100 + 40 = 140$   
 $78 + 62 = 140$   
 $140 - 78 = 62$

7. Add or subtract mentally.

a)  $47 + 8 = 55$

b)  $84 - 6 = 78$

c)  $53 + 21 = 74$

d)  $98 - 65 = 33$

8. Add or subtract mentally.

a)  $726 + 70 = 796$

b)  $374 - 60 = 314$

c)  $263 + 500 = 763$

d)  $648 - 400 = 248$

e)  $168 + 7 = 175$

f)  $584 - 5 = 579$

g)  $432 + 90 = 522$

h)  $310 - 40 = 270$

9. Add or subtract mentally.

a)  $237 + 99 = 336$

b)  $183 - 99 = 84$

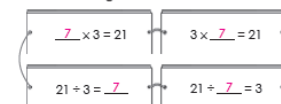
c)  $304 - 98 = 206$

d)  $535 + 98 = 633$

10. Complete the number patterns.

- a) 2, 4, 6, 8, 10, 12, 14, 16, 18, 20  
 b) 3, 6, 9, 12, 15, 18, 21, 24, 27, 30  
 c) 4, 8, 12, 16, 20, 24, 28, 32, 36, 40  
 d) 5, 10, 15, 20, 25, 30, 35, 40, 45, 50  
 e) 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

11. Fill in the missing numbers.



Solve the word problems. Draw bar models to help you. Show your work clearly.

12. Ming has 99 seashells. His friend gives him another 26 seashells. How many seashells does Ming have now?

$99 + 26 = 125$

Ming has 125 seashells now.

## Practice Book Review 4

Task	Objectives	Coursebook Reference
1	To interpret a 3-digit number in terms of hundreds, tens and ones	2A Chapter 1
2	To read and write a 3-digit number	2A Chapter 1
3	To find a part or whole in a number bond	2A Chapter 1 2B Chapter 9
4	To compare and order numbers within 1000	2A Chapter 1

## Concepts




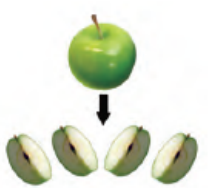
## Chapter

## Practice Book Review 4 (continued)

Task	Objectives	Coursebook Reference
5	To find the missing number in an addition or subtraction sentence	2B Chapter 9
6	To mentally subtract a 2-digit number from a 3-digit number using the related addition sentence	2B Chapter 9
7	To mentally add or subtract a 1-digit or 2-digit number to or from a 2-digit number	2B Chapter 9
8	To mentally add or subtract ones, tens or hundreds to or from a 3-digit number	2B Chapter 9
9	To mentally add or subtract 98 or 99 to or from a 3-digit number	2B Chapter 9
10	To count by twos, threes, fours, fives or tens	2A Chapter 8 2B Chapter 10
11	To multiply or divide numbers within the multiplication table of 3	2B Chapter 10

# Problem solving

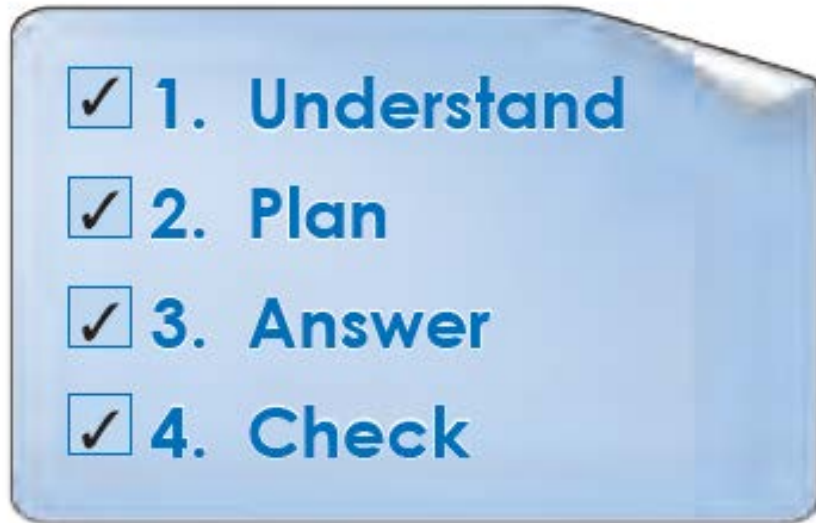


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# Teaches process AND strategies



- The Process



- The Strategies/Heuristics

- Draw a diagram
- Make a list
- Choose an operation
- Guess and check
- Look for patterns
- Make suppositions
- Act it out
- Work backwards
- Before-after concept
- Simplify the problem
- Solve part of the problem

# Problem solving process and strategies

Coursebook 2B

Strategies and mathematical thinking

Problem solving process

- ✓ 1. Understand
- ✓ 2. Plan
- ✓ 3. Answer
- ✓ 4. Check

## Lesson 5 Problem Solving

### Word problems

#### Let's Learn

Jamie buys 6 bags of tomatoes.  
There are 3 tomatoes in each bag.  
How many tomatoes does Jamie buy altogether?

1 **Understand**  
the problem.

How many bags of tomatoes are there?  
How many tomatoes are in each bag?  
What do I have to find?

2 **Plan** what to do.


I should multiply to get the answer.  
I can **draw a bar model** to help me.

3 **Work out the Answer.**



$$6 \times 3 = 18$$

Jamie buys 18 tomatoes altogether.

1  stands for 1 bag

1 unit → 3 tomatoes  
6 units →  $6 \times 3$  tomatoes

4 **Check**  
Did you answer  
the question?  
Is your answer  
correct?

$18 \div 3 = 6$   
My answer is correct.

- ✓ 1. Understand
- ✓ 2. Plan
- ✓ 3. Answer
- ✓ 4. Check



# Problem solving process and strategies

## Lesson 5: Problem Solving

Duration: 3 h 20 min

### Let's Learn Word problems

#### Objectives:

- To solve a 1-step word problem on multiplication
- To use a part-whole bar model to represent a multiplication situation

#### Resource:

- CB: pp. 54–55

Possible student misconceptions

#### Suggested Procedure

Project the word problem on CB p. 54 on the board. Struggling students might still be unclear about the four basic operations; some may relate 'altogether' with addition, and thus be confused when multiplication is introduced as the method to find the total number of objects. Highlight and correct this misconception before moving on.

#### 1. Understand the problem

Pose the questions in the first thought bubble. Guide students by drawing 6 bags with 3 tomatoes in each bag on the board to illustrate the word problem.

#### 2. Plan what to do

**Ask:** What should we do to get the answer? (Multiply)

**Say:** We can draw a part-whole bar model to help us solve the word problem

## Lesson 5 Problem Solving

### Word problems

#### Let's Learn

Jamie buys 6 bags of tomatoes.  
There are 3 tomatoes in each bag.  
How many tomatoes does Jamie buy altogether?

#### 1 Understand the problem.

How many bags of tomatoes are there?  
How many tomatoes are in each bag?  
What do I have to find?

#### 2 Plan what to do.


I should multiply to get the answer.  
I can **draw a bar model** to help me.

#### 3 Work out the Answer.



$$6 \times 3 = 18$$

Jamie buys 18 tomatoes altogether.

1  stands for 1 bag

1 unit  $\rightarrow$  3 tomatoes  
6 units  $\rightarrow$   $6 \times 3$  tomatoes

#### 4 Check Did you answer the question? Is your answer correct?

$18 \div 3 = 6$   
My answer is correct.

- ☒ 1. Understand
- ☒ 2. Plan
- ☒ 3. Answer
- ☒ 4. Check



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Mathematics

# PRIME Components

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# Program Components

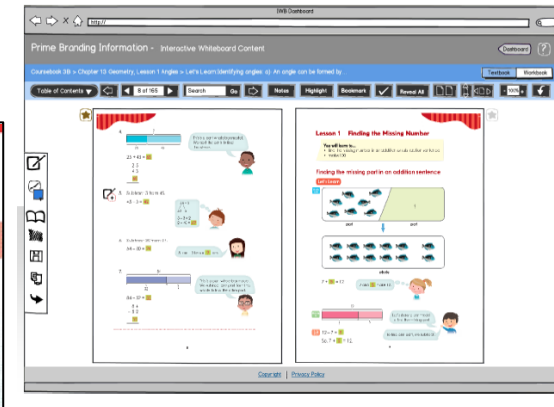
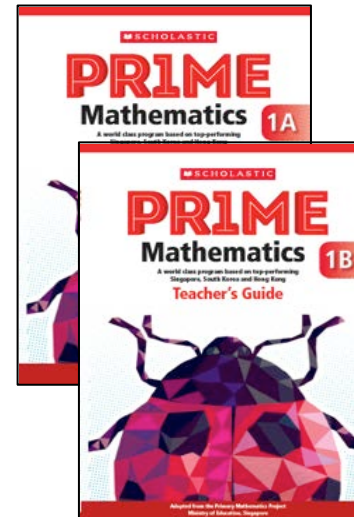
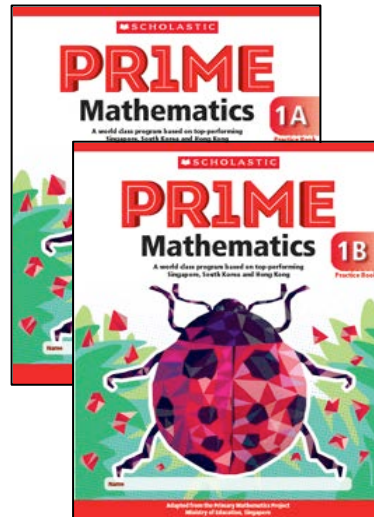
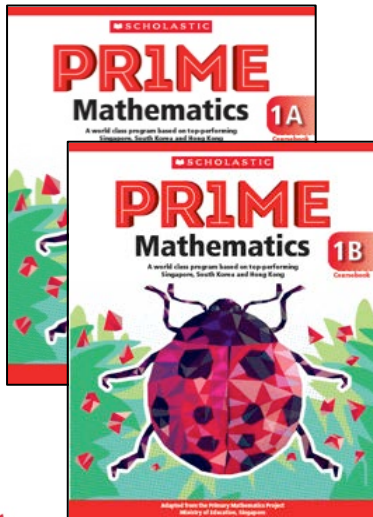
## Scholastic PRIME Mathematics

Coursebooks  
G1-G6

Practice  
Books  
G1-G6

Teacher's  
Guides  
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Technology  
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Mathematics

# Books or Interactive Whiteboard Resources? Both!

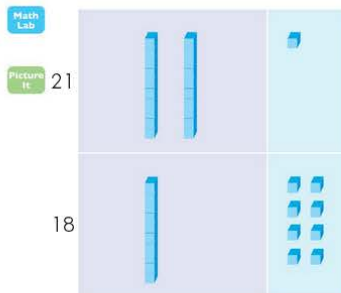


## Adding two 2-digit numbers

### Let's Learn

Add 21 and 18.

$$21 + 18 = \square$$



21 + 18 = 39

### Let's Do

1. Add.

a)

Tens	Ones
1	6
+	2
<hr/>	

c)

Tens	Ones
2	3
+	5
<hr/>	

b)

Tens	Ones
1	7
+	1
<hr/>	

d)

Tens	Ones
2	6
+	3
<hr/>	

Chapter 15: Exercise 4

## Subtracting ones

### Let's Learn

Subtract 3 from 25.



I have learned different ways to subtract.

a) We can subtract by counting backwards.



25 - 3 =  $\square$

Count backwards from 25.  
25, 24, 23, (22)

b) We can subtract using number bonds.

$$\begin{array}{r} 25 \\ 20 \quad 5 \\ - 3 \\ \hline \end{array}$$

First, subtract 3 from 5.  
 $5 - 3 = 2$   
Then, add 2 and 20.  
 $2 + 20 = 22$

c) We can subtract using place value. 1 Subtract the ones.



25 - 3 = 22

Tens	Ones
2	5
-	3
	2

2 Subtract the tens.

Tens	Ones
2	5
-	3
2	2

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