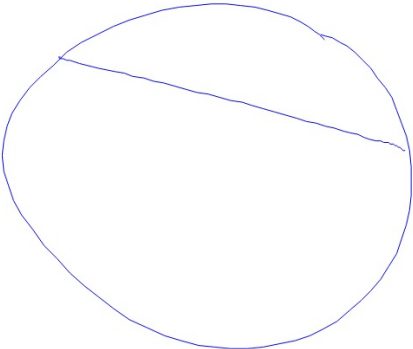



Quadrilateral Day!

- **Today's words: quadrilateral, parallelogram, trapezoid, trapezium, rectangle, rhombus, square, kite**

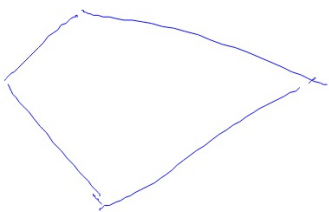
Vocabulary Notecard # 46

A Word	B Definition
Chord	Any segment from one side of a circle to the other, <u>NOT</u> necessarily through center
C Diagram	D Real World Example
	parm chz lid

Vocabulary Notecard # 47

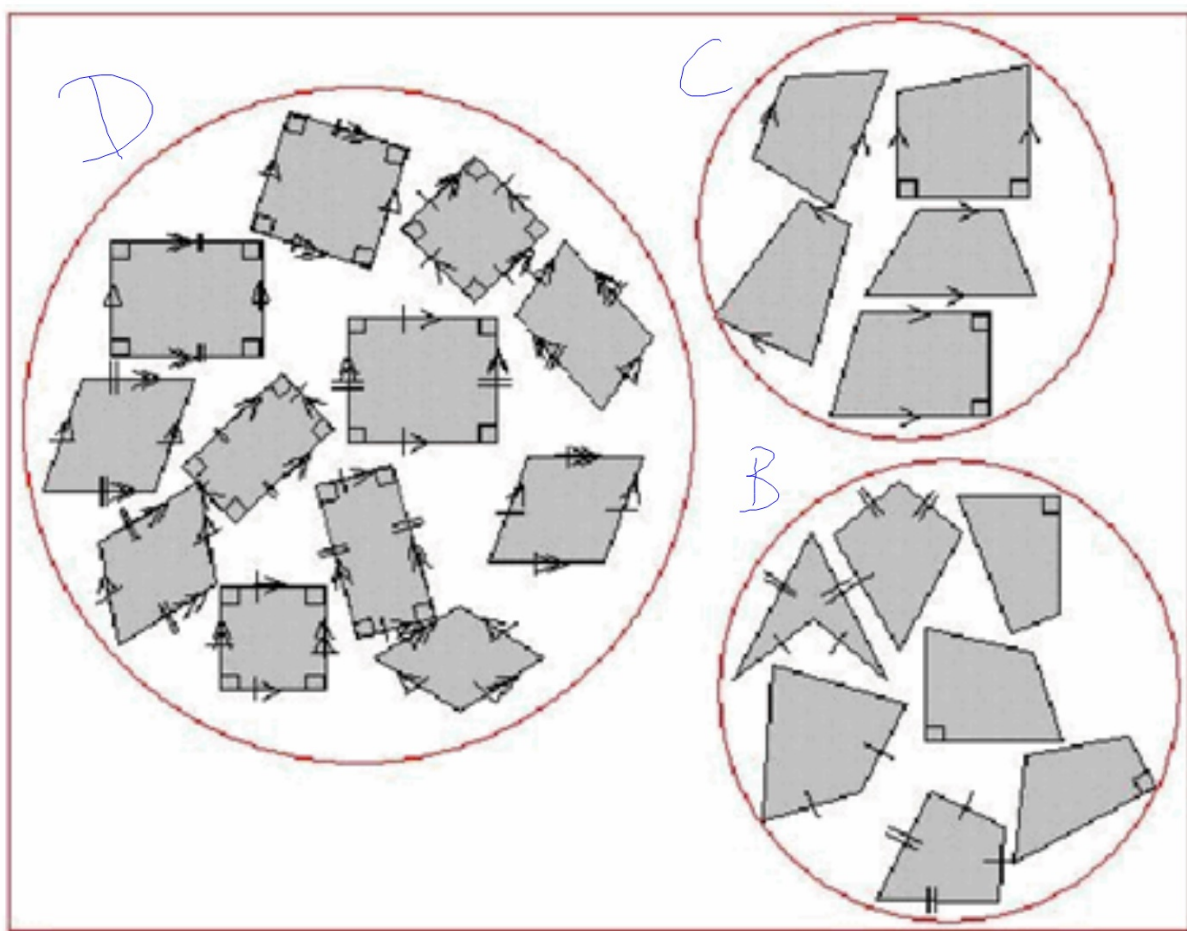
A Word	B Definition
Sector	Section of a circle coming from center
C Diagram	D Real World Example
	piece of pie/pizza

Vocabulary Notecard # 48

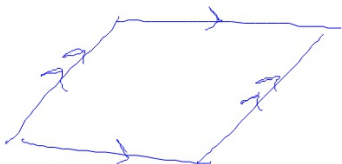
<div style="display: inline-block; width: 30px; height: 30px; border-radius: 50%; background-color: #ccc; text-align: center; line-height: 30px; margin-right: 10px;">A</div> Word	<div style="display: inline-block; width: 30px; height: 30px; border-radius: 50%; background-color: #ccc; text-align: center; line-height: 30px; margin-right: 10px;">B</div> Definition
<p style="text-align: center;">Quadrilateral 4 sides</p>	<p>A polygon with 4 Sides</p>
<div style="display: inline-block; width: 30px; height: 30px; border-radius: 50%; background-color: #ccc; text-align: center; line-height: 30px; margin-right: 10px;">C</div> Diagram	<div style="display: inline-block; width: 30px; height: 30px; border-radius: 50%; background-color: #ccc; text-align: center; line-height: 30px; margin-right: 10px;">D</div> Real World Example
	<p>Squares rectangles rhombus trapezoid etc.</p>

Use your geoboard to make a quadrilateral of your choice!

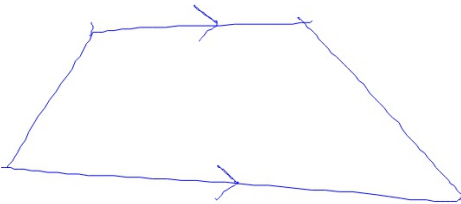
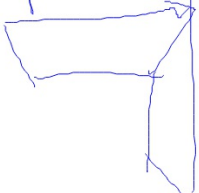
How would you classify these three families of shapes?



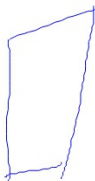
Vocabulary Notecard # 49

A Word	B Definition
Parallelogram	A quad. with 2 pairs of parallel sides
C Diagram	D Real World Example
	eraser

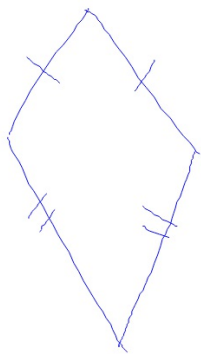
Vocabulary Notecard # 50

A Word	B Definition
Trapezoid	A quad with <u>ONE</u> pair of parallel sides
C Diagram	D Real World Example
	library tables picture frame parts 

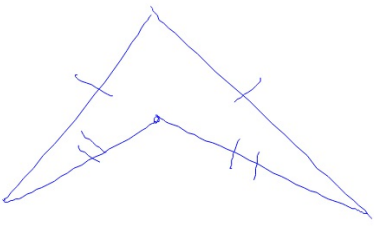
Vocabulary Notecard # 51

A Word	B Definition
Trapezium	A quad with <u>NO</u> parallel sides
C Diagram	D Real World Example
	?

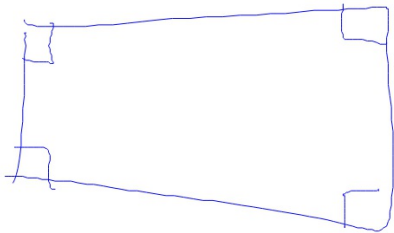
Vocabulary Notecard # 52

A Word	B Definition
kite	A quad with 2 pairs of <u>adjacent</u> congruent sides (attached) (convex - angles out)
C Diagram	D Real World Example
	kite

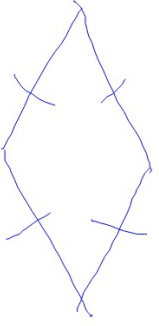
Vocabulary Notecard # 53

A Word	B Definition
<p>arrow</p>	<p>A quad. with 2 pairs of <u>adjacent</u> congruent sides (concave - IN)</p>
C Diagram	D Real World Example
	<p>arrow boomerang</p>

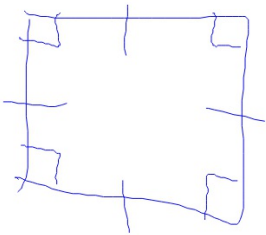
Vocabulary Notecard # 54

A	Word	B	Definition
	Rectangle (equiangular)		A parallelogram with 4 right angles
C	Diagram	D	Real World Example
			paper notecards TV screens

Vocabulary Notecard # 55

A Word	B Definition
Rhombus (equilateral)	A parallelogram with 4 congruent sides
C Diagram	D Real World Example
	diamond on cards

Vocabulary Notecard # 56

A Word	B Definition
Square	A parallelogram with 4 right angles <u>AND</u> 4 congruent sides
C Diagram	D Real World Example
	Geoboard

Vocabulary Notecard #

A	Word	B	Definition
C	Diagram	D	Real World Example

Below is a list of different types of quadrilaterals. Some you may be familiar with and others will be new to you.

Parallelograms

Trapezoids

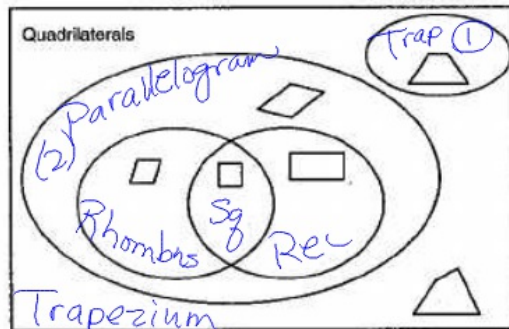
Rhombuses

Rectangles

Squares

The Venn diagram below can be used to classify these quadrilaterals. Use each type of quadrilateral once and fill in the Venn diagram. If you are unfamiliar with the characteristics of a certain type, you will need to do some research first.

Polygon



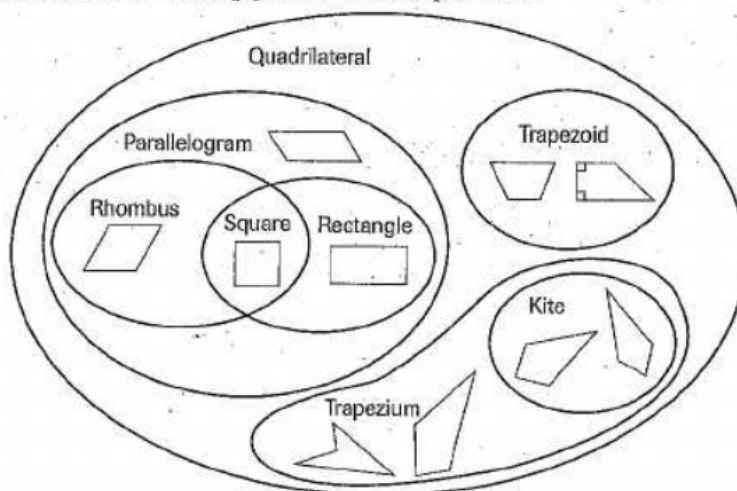
Fill in the blanks.

1. Parallelograms are special types of Quad Poly
2. Squares are special types of Rhombus, Rec, Parall, Quad
3. Rectangles are special types of _____

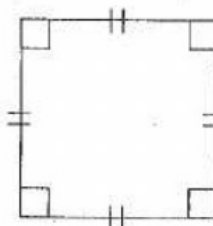
Name _____ Date _____

Quadrilaterals

Use the illustration below to help you answer the questions.

Use the diagram at the right to answer questions 1-6. Circle *true* or *false*.

- | | | |
|-----------------------------------|-------------|--------------|
| 1. The figure is a trapezoid. | true | <u>false</u> |
| 2. The figure is a parallelogram. | <u>true</u> | false |
| 3. The figure is a rhombus. | true | false |
| 4. The figure is a trapezium. | true | false |
| 5. The figure is a rectangle. | true | false |
| 6. The figure is a square. | true | false |

Use the diagram at the right to answer questions 7-13. Circle *true* or *false*.

- | | | |
|------------------------------------|------|-------|
| 7. The figure is not a trapezoid. | true | false |
| 8. The figure is a parallelogram. | true | false |
| 9. The figure is a rhombus. | true | false |
| 10. The figure is not a rectangle. | true | false |
| 11. The figure is a square. | true | false |
| 12. The figure is a trapezium. | true | false |
| 13. The figure is a kite. | true | false |



Name _____ Date _____

Circle the correct choice(s).

14. If a quadrilateral has at least one pair of parallel sides, it could be a—
trapezoid kite trapezium parallelogram rectangle rhombus

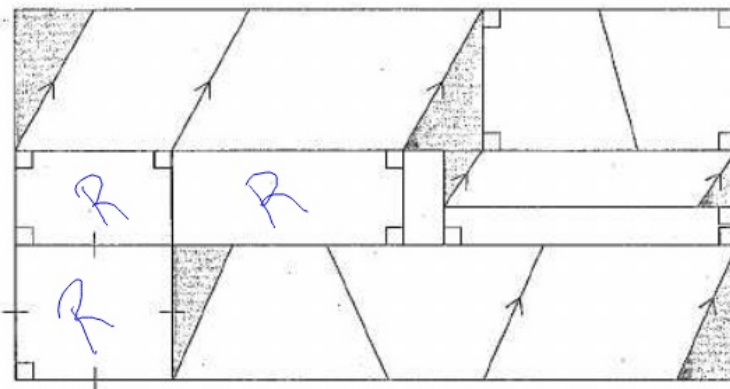
Circle the phrase that completes the sentence correctly for each figure.

A quadrilateral with both pairs of opposite sides parallel—

15. *is always* *may be* *is never* a trapezoid.
16. *is always* *may be* *is never* a trapezium.
17. *is always* *may be* *is never* a rectangle.
18. *is always* *may be* *is never* a parallelogram.
19. *is always* *may be* *is never* a kite.
20. *is always* *may be* *is never* a rhombus.
21. *is always* *may be* *is never* a square.

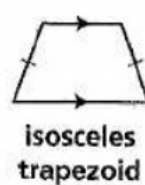
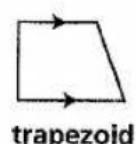
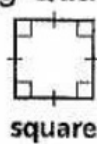
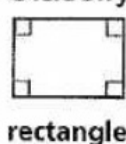
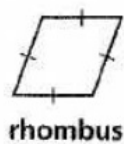
Use the drawing below to answer question 22–25.

Assume all horizontal segments are parallel and all vertical segments are parallel.



22. Label all trapezoids *T*.
23. Label all parallelograms *P*.
24. Label all squares *S*.
25. Label all rectangles *R*.

Section 2-4 Classifying Quadrilaterals



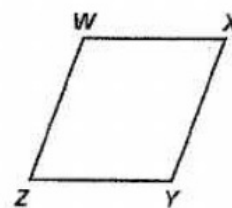
Example

Judging by appearance, name $WXYZ$ in as many ways as possible.

It is a quadrilateral because it has four sides.

It is a parallelogram because both pairs of opposite sides are parallel.

It is a rhombus because it has four congruent sides.



Activity

Use a protractor and a straightedge to sketch an example of each quadrilateral. Then name it in as many ways as possible.

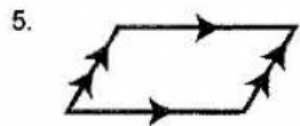
1. a quadrilateral with exactly one pair of parallel sides

2. a quadrilateral with opposite sides parallel

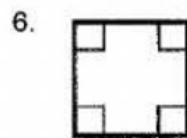
3. a quadrilateral with four right angles.

4. a quadrilateral with four congruent sides

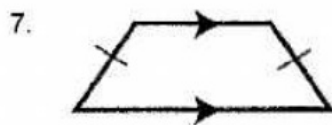
Classify each quadrilateral by its **most precise** name.



5) _____



6) _____

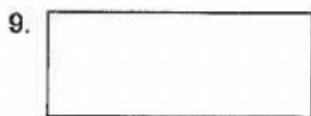


7) _____



8) _____

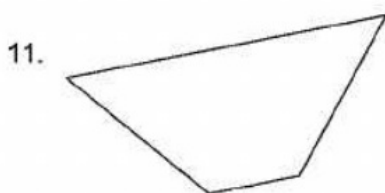
Judging by appearance, name each quadrilateral in as many ways as possible.



9) _____



10) _____



11) _____



12) _____
