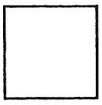
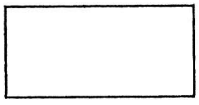
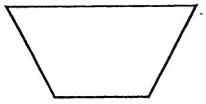
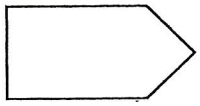
SOL 7.9

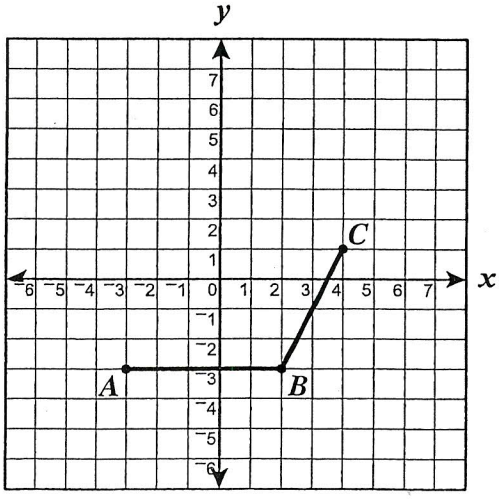
Which polygon is *not* a quadrilateral?

A 

B 

C 

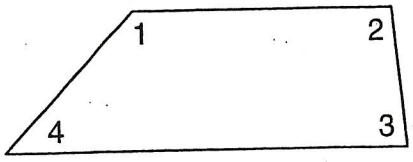
D 



Points *A*, *B*, and *C* are vertices of a parallelogram. What are the coordinates of the fourth vertex?

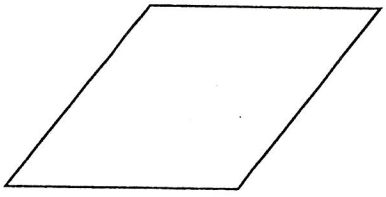
(0, 0)
(0, 1)
(−1, 1)
(−1, −1)

Look at the angles in this quadrilateral.



Which angle measure is closest to 48°?

A ∠1
B ∠2
C ∠3
D ∠4



If all sides of the polygon pictured are equal in length, the polygon is most likely a —

square
rhombus
rectangle
nonagon

Name _____ Date _____

~~SOL 7.10~~
SOL 7.9

1. **Which can NOT be classified as a parallelogram?**

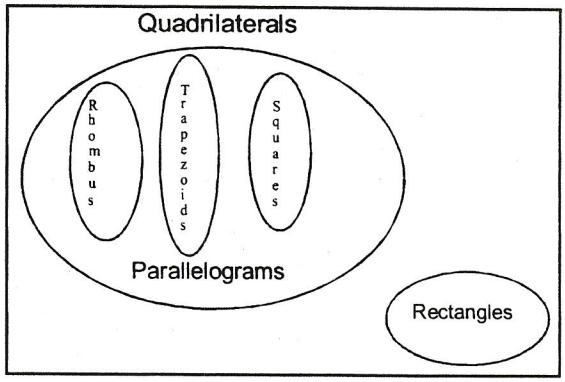
A rhombus
B rectangle
C square
D trapezoid

2. **Which statement is false?**

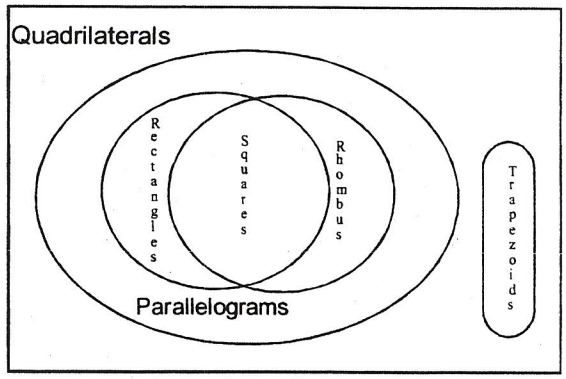
A A trapezoid has only one pair of parallel sides.
B A rectangle is always a square.
C A parallelogram is always a quadrilateral.
D A square is always a rhombus.

3. **Which Venn diagram on the right correctly shows the relationship between quadrilaterals, parallelograms, rhombuses, squares, rectangles, and trapezoids?**

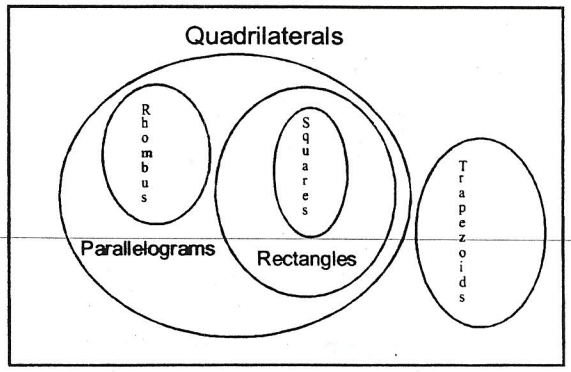
A



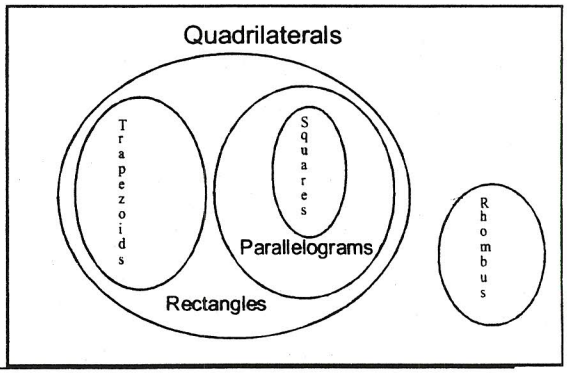
B



C

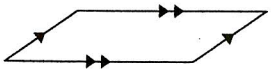


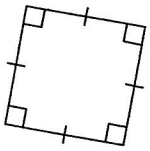
D

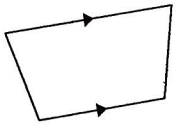


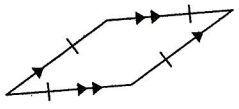
Classify each quadrilateral with the name that best describes it. Name_____

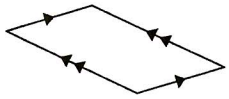
Date_____ Period____

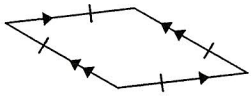
13) 

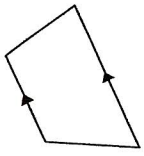
14) 

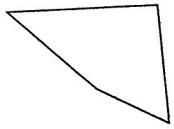
15) 

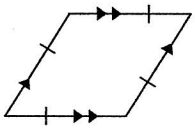
16) 

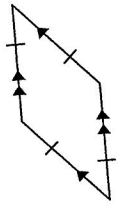
17) 

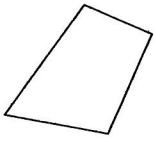
18) 

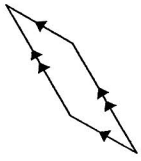
19) 

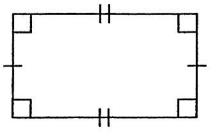
20) 

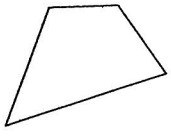
21) 

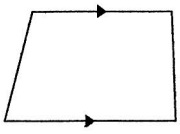
22) 

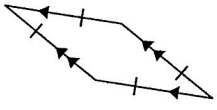
23) 

24) 

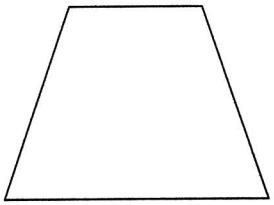
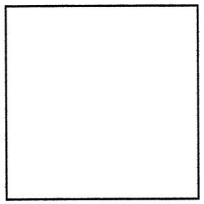
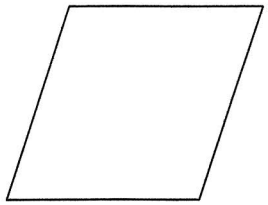
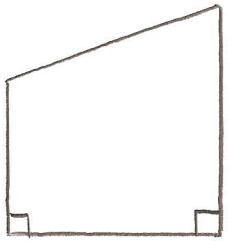
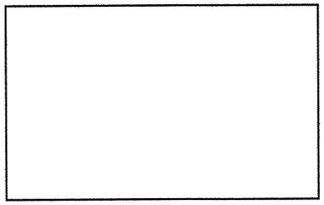
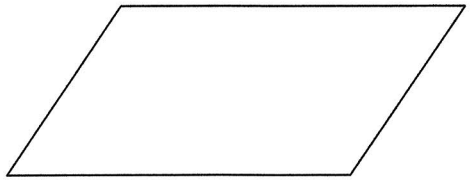
25) 

26) 

27) 

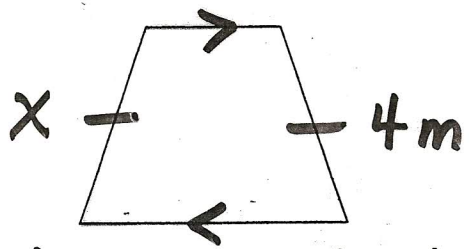
28) 

SOL 7.9 ~ Classifying Quadrilaterals

Isosceles Trapezoid 	Square 	Rhombus 
Right Trapezoid 	Rectangle 	Parallelogram 

SOL 7.9 ~ Classifying Quadrilaterals

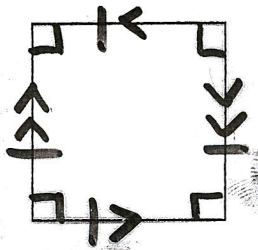
Isosceles Trapezoid



* 1 pair of parallel sides

1 pair of congruent sides

Square

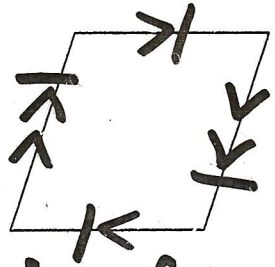


2 pairs of parallel sides

4 congruent sides

4 right angles (90°)

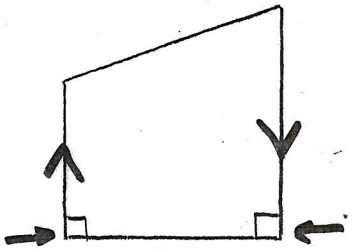
Rhombus



2 pairs of parallel sides

4 congruent sides

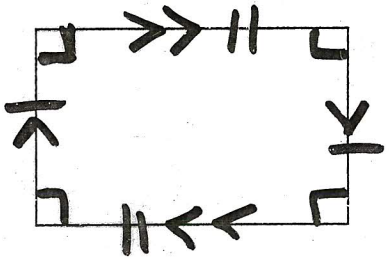
Right Trapezoid



* 1 pair of parallel sides

2 right angles (90°)

Rectangle

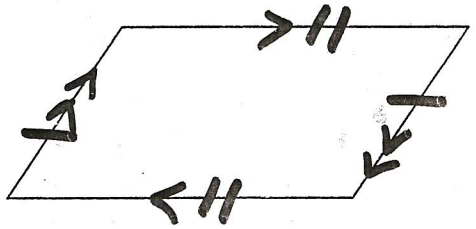


2 pairs of parallel sides

2 pairs of congruent sides

4 right angles (90°)

Parallelogram



2 pairs of parallel sides

2 pairs of congruent sides

Name _____ Date _____ Class _____

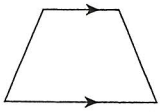
LESSON 8-7

Reteach

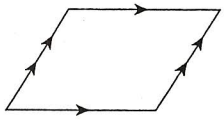
Classifying Quadrilaterals

Quadrilaterals are polygons that have 4 sides. In the figures below, arrows are used to indicate parallel sides, and tick marks are used to indicate congruent sides.

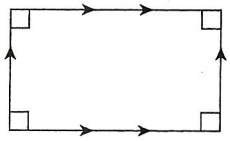
- A **trapezoid** is a quadrilateral with only one pair of parallel sides.



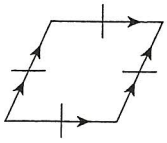
- A **parallelogram** is a quadrilateral with two pairs of parallel sides.



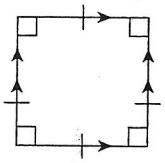
- A **rectangle** is a parallelogram with all four angles congruent.



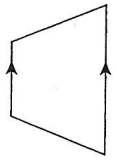
- A **rhombus** is a parallelogram with all four sides congruent.



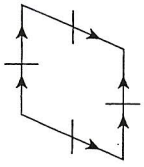
- A **square** is a rectangle with all four sides congruent.



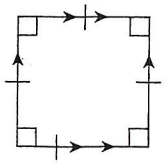
Use the figures to complete the statements.



1. The figure is a _____ since it has _____ pair of parallel sides.



2. The figure is a _____ and a _____ since it has _____ pair(s) of parallel sides, and _____ sides are congruent.



3. The figure is a _____ and a _____ and a _____ and a _____ since it has _____ pair(s) of parallel sides, _____ angles are congruent, and _____ sides are congruent.

Name _____ Date _____ Class _____

LESSON 8-7

Practice A

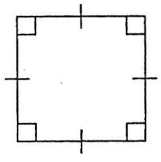
Classifying Quadrilaterals

1. List the six major special quadrilaterals.

_____

_____

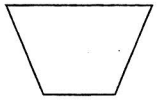
Give all of the names that apply to each quadrilateral.

2. 

_____

_____

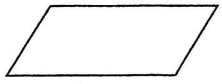
_____

3. 

_____

_____

_____

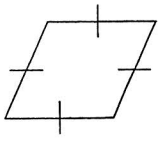
4. 

_____

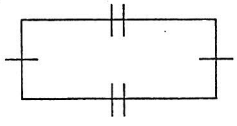
_____

_____

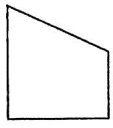
Give the name that best describes each quadrilateral.

5. 

_____

6. 

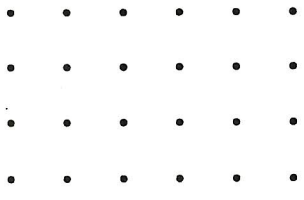
_____

7. 

_____

Draw each figure. If it is not possible to draw, explain why.

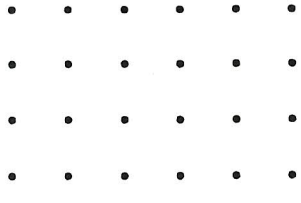
8. A rhombus that is also a square.



_____

_____

9. A trapezoid that is also a rectangle.



_____

_____

_____

_____

Quadrilaterals

Reporting category Geometry

Overview Students design a Venn diagram to show the relationship between the quadrilaterals.

Related Standard of Learning 7.9

Objectives

- The student will identify quadrilaterals.
- The student will compare and contrast attributes of the quadrilaterals.

Materials needed

- Construction paper
- Scissors
- Markers

Instructional activity

Activity A

1. Have students describe the difference between a parallelogram and a rectangle by describing their opposite sides, their angles, and the parallel nature of their sides. Have students draw and cut out an example of each shape, writing its characteristics on it. Make sure the wording is correct.
2. Have the students compare the rhombus and square, following the same procedures.
3. Then have them compare the trapezoids (right and isosceles), using the same procedures.
4. Point out to the students that they have described each shape according to its sides and angles. This gives them their own visuals for understanding quadrilaterals.

Activity B

1. Have students compare and contrast quadrilaterals. Using the models from the previous activity, have students make duplicate copies of the quadrilaterals. Have students place a quadrilateral on top of the original set that matches the description. Emphasize the vocabulary. Emphasize that the square is a special type of rhombus. Emphasize the term *right angle* for square. This leads the students into making the Venn diagram.
2. Make the Venn diagram using a similar layout from the previous activity.
3. Make a mobile showing the quadrilateral relationships.

Sample assessment

- Observe student work as they work with quadrilaterals.

Follow-up/extension

- Have students make a polygon picture book, and have them label the characteristics of all polygons, quadrilaterals, and triangles.
- This picture book can be a family album or a design of a city. Encourage students to be creative.

Quadrilaterals
Parallelograms
Rectangles
Squares
Rhombus
Trapezoids