Reteaching 7-4

Classifying Triangles and Quadrilaterals

A *quadrilateral* is a 4-sided polygon. A *triangle* is a 3-sided polygon.
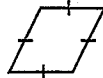
QUADRILATERALS

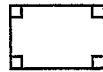A *parallelogram* is a quadrilateral with 2 pairs of parallel sides.

A *trapezoid* is a quadrilateral with only 1 pair of parallel sides.

A *rhombus* is a parallelogram with 4 congruent sides.

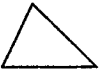A *rectangle* is a parallelogram with 4 right angles.

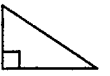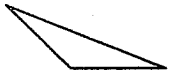A *square* is a rectangle with 4 congruent sides or a rhombus with 4 right angles.

TRIANGLES

An *acute triangle* has 3 angles smaller than 90°.

A *right triangle* has 1 angle of 90°.

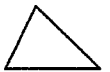An *obtuse triangle* has 1 angle larger than 90°.

An *equilateral triangle* has 3 congruent sides.
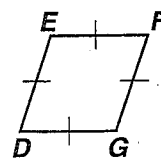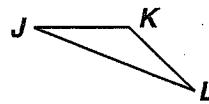
An *isosceles triangle* has at least 2 congruent sides.

A *scalene triangle* has no congruent sides.
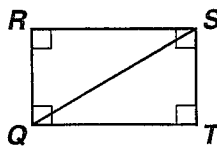

Name all the figures shown that fit each description. If none are shown, write *none*.
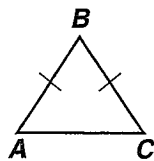
1. obtuse triangle

_____

2. parallelogram

_____

3. right triangle

_____

4. rhombus

_____

5. trapezoid

_____

6. isosceles triangle

_____

7. acute triangle

_____

8. rectangle

_____
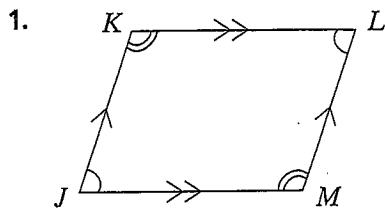
Name _____ Class _____ Date _____

Practice 7-4 ·······································

Determine the best name for each quadrilateral. Explain your choice.

1.

2.

3.

4

5.
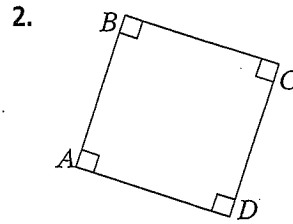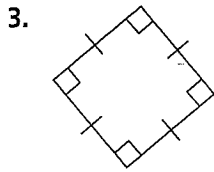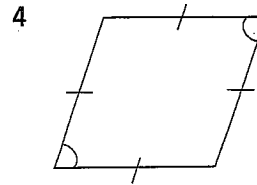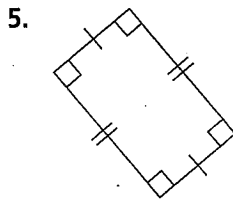
6. $\triangle ABC \cong \triangle CDA$
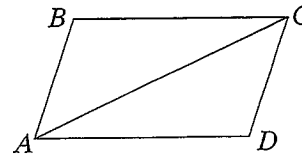
Classify each triangle by its sides and its angles. Explain your choice.
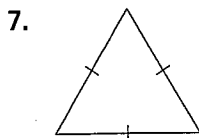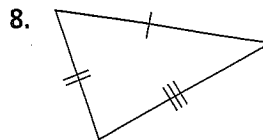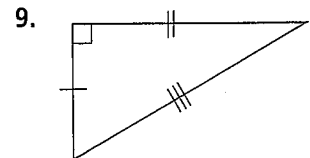
7.

8.

9.

···

7-4 • Guided Problem Solving

GPS **Student Page 321, Exercise 22:**

The coordinates of three vertices of a parallelogram are $(3, 5)$, $(8, 5)$, and $(1, -1)$. Find the coordinates for the fourth vertex.

Understand

1. Name the geometric figure in the problem.

   _____

2. What do you know about the sides of this figure?

   _____

3. What do you know about the lengths of the opposite sides of this figure?

   _____

4. What are you looking for?

   _____

Plan and Carry Out

5. Plot the given points on the grid at right.

6. Must a parallelogram have right angles? _____

7. Draw the horizontal line segment. How long is it?

   _____

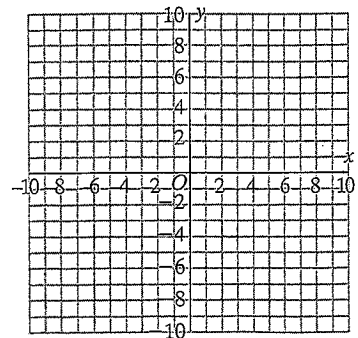8. Keeping the length of the parallel lines the same, where should you place the point?

   _____
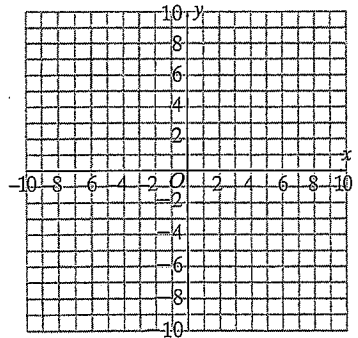
Check

9. Is every point plotted correctly to create a parallelogram?

   _____

Solve Another Problem

10. The coordinates of three vertices of a parallelogram are $(2, 2)$, $(4, 2)$, and $(7, 5)$. What is the coordinate of the fourth vertex?

    _____