Quadrilaterals

Classifying quadrilaterals

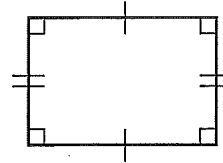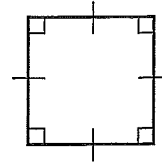|				
Trapezoid	**Parallelogram**	**Rhombus**	**Rectangle**	**Square**
A quadrilateral with only one pair of parallel sides	A quadrilateral with both pairs of opposite sides parallel; Opposite sides and opposite angles are congruent.	A parallelogram with all sides congruent	A parallelogram with four right angles	A rectangle with all sides congruent; A square is also a rhombus.
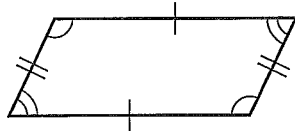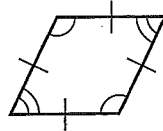
Finding the missing measure of a quadrilateral:

The measures of three angles of a quadrilateral are 115°, 68°, and 45°. Find the measure of the fourth angle.

Remember, the sum of all four angles must be 360°.

$$115 + 68 + 45 + x = 360$$

$$228 + x = 360$$

$$x = 132$$

The measure of the fourth angle is 132°.

Classify each polygon in as many ways as possible.

1.

_____

_____

_____

2.

_____

_____

_____

The measures of three angles of a quadrilateral are given. Find the measure of the fourth angle.

3. 90°, 90°, 90° _____

4. 80°, 60°, 120° _____

5. 70°, 120°, 120° _____

6. 130°, 40°, 50° _____

Quadrilaterals

Classify each polygon in as many ways as possible.

1.

_____

_____

_____
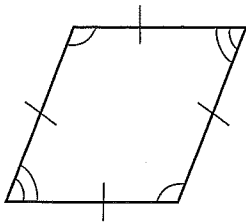
2.

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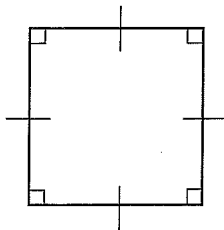
3.

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_____
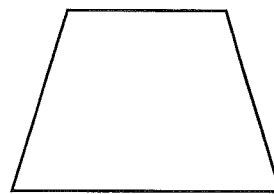
The measures of three angles of a quadrilateral are given. Find the
measure of the fourth angle and classify each quadrilateral according to
its angles.

4. 125°, 55°, 125°

_____

_____

5. 110°, 100°, 80°

_____

_____

6. 90°, 70°, 150°

_____

_____

7. Draw a quadrilateral with one pair of parallel sides.
One side is 1.5 in. The other side is 0.5 in. The
bottom right and top right angles are 90°. The bottom
left angle is 40°. Label the sides and angles.

8. A rhombus has one 65° angle and a 5 cm side. Is this enough
information to find the remaining angles and side lengths? Explain.

_____

_____

9. Which pair of angles would be side-by-side in a parallelogram?

   A 40°, 40°   B 40°, 140°   C 60°, 110°   D 65°, 105°

10. **Writing to Explain** What characteristics help you classify a
quadrilateral as a parallelogram and not a rectangle? Explain.

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