Name: _____

10.6 • Categorizing Quadrilaterals

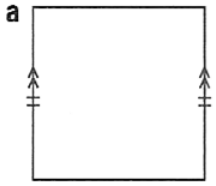
Past due on: _____ Period: _____

List all types of quadrilaterals with the given characteristics.

1. The quadrilateral has four right angles.
2. The quadrilateral has four congruent sides.
3. Exactly one pair of opposite sides of the quadrilateral is parallel.
4. Exactly two pairs of opposite sides of the quadrilateral is parallel.
5. Opposite angles of the quadrilateral are congruent.
6. Exactly two pairs of adjacent sides are congruent.
7. The sum of the measures of the interior angles of the quadrilateral is 360°.
8. The sum of the measures of the exterior angles of the quadrilateral is 360°.
9. The diagonals of the quadrilateral are congruent.
10. The diagonals of the quadrilateral do not bisect each other.

11. Consider all of the quadrilaterals you have studied in this chapter. Use the markings and/or measures to determine the most descriptive name for each quadrilateral below.

a



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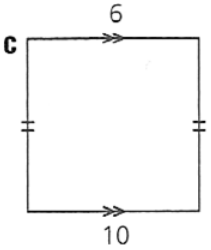

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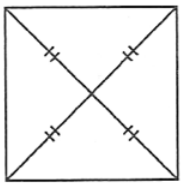

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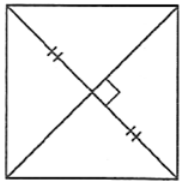

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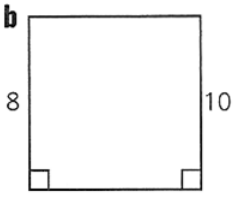

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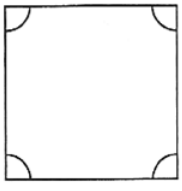

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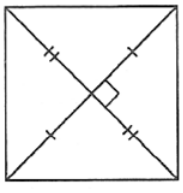

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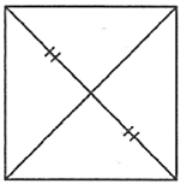

Tell whether the statement is true or false. If false, explain why.

12. A trapezoid is also a parallelogram.

13. A square is also a rhombus.

14. Diagonals of a rectangle are perpendicular.

15. A parallelogram has exactly one pair of opposite angles congruent.

16. A square has diagonals that are perpendicular and congruent.

17. All quadrilaterals have supplementary consecutive angles.

Determine whether the parallelogram is a rhombus, a rectangle, or a square. Give the most precise description in each case.

18. A parallelogram has perpendicular diagonals and angle measures of 45°, 135°, 45°, and 135°.

19. A parallelogram has perpendicular and congruent diagonals.

20. A parallelogram has congruent diagonals.

Consider the Ace of Diamonds playing card shown. The large diamond in the center of the playing card is a quadrilateral. Classify the quadrilateral based only on each piece of given information.

21. The diagonals of the quadrilateral bisect each other.

22. The four sides of the quadrilateral are congruent.

23. The four angles and the four sides of the quadrilateral are congruent.

24. The diagonals of the quadrilateral bisect the vertex angles.

25. The four angles of the quadrilateral are congruent.

26. The opposite sides of the quadrilateral are both congruent and parallel.

27. The opposite angles of the quadrilateral are congruent.

28. The diagonals of the quadrilateral are perpendicular to each other.

29. The diagonals of the quadrilateral are congruent.