Name: _____ Date: ____



Properties of Triangles and Four-sided Figures

Vocabulary

Fill in the blanks.
Use the words in the box.

- 1. A ______ is a closed figure formed by joining line segments.
- **2.** Polygons have _____ and sides.
- **3.** have 3 sides.
- **4.** Squares, rectangles, and rhombuses are examples of ______.

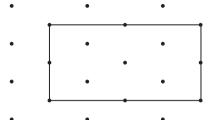
- trapezoid
 vertices
 quadrilaterals
 inequality
 polygon
 triangles
- **5.** One set of opposite sides of a ______ is parallel.
- **6.** When expressions are not equal, they form an ______.

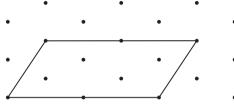
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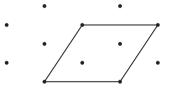
Concepts and Skills

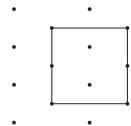
Write the name of each polygon.

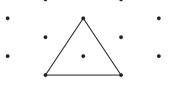
7.

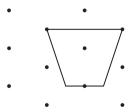












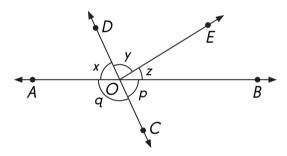
Complete.

- A triangle has _____ sides. 8.
- All four sides of a square are of ______length. 9.

- **10.** The opposite sides of a square, a rectangle, a parallelogram, and a rhombus are _______.
- 11. The ______ sides of a rectangle are of equal length.
- 12. Only _____ pair of opposite sides of a trapezoid is parallel.
- **13.** ">" means _____ and "<" means _____.

Complete.

14. \overrightarrow{AB} and \overrightarrow{CD} meet at O.



a.
$$m \angle _{----} + m \angle _{----} = 180^{\circ}$$

b.
$$m \angle x + m \angle ___ + m \angle ___ = 180^{\circ}$$

c.
$$m \angle p + m \angle ___ + m \angle ___ = 180^{\circ}$$

Complete with <, >, or =.

15. If
$$p = 10$$
, then $p - 3$ 8.

16. If
$$m = 3$$
, then $25 + m$ 28

17. If
$$y = 7$$
, then $y + 3$ 5.

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Problem Solving

Solve.

18.

I have 4 equal sides. But none of my angles form a right angle. What shape am I?

19.

I have 4 sides.
Only 1 pair of my opposite sides is parallel.
What shape am I?