

Name _____ Date _____

Polygon Practice Test

Terms to Know:

1) Polygon

- a. A circular, 2 dimensional shape with straight sides and no openings.
- b. A flat, 2 dimensional shape with straight sides and no openings.
- c. A flat, 3 dimensional shape with long sides and short openings.

2) Quadrilateral

- a. A flat, 2 dimensional shape with 2 sides.
- b. A flat, 2 dimensional shape with 4 sides.
- c. A flat, 2 dimensional shape with 6 sides.



3) Parallel

- a. Lines (sides) that form a 180° angle.
- b. Lines (sides) that are always the same distance apart and never touching.
- c. Lines (sides) that intersect and form 90° angles.

4) Perpendicular

- a. Lines (sides) that form 45° angles.
- b. Lines (sides) that are always the same distance apart and never touching.
- c. Lines (sides) that touch or intersect and form 90° angles.

5) Adjacent

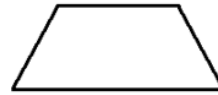
- a. Two lines (sides) that lie next to each other and meet at a common vertex.
- b. Two lines (sides) that lie next to each other and never meet.
- c. Two lines (sides) that lie next to each other and meet at two different vertices.

6) Congruent

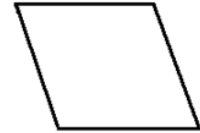
- a. Lines, angles, or shapes that are the same.
- b. Lines (sides) that form 45° angles.
- c. A flat, 3 sided shape with 3 straight sides.

7) Which quadrilateral has no parallel sides?

- a. quadrilateral W
- b. quadrilateral X
- c. quadrilateral Y
- d. quadrilateral Z



Quadrilateral W



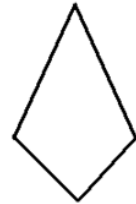
Quadrilateral X

8) Which quadrilateral is a trapezoid?

- a. quadrilateral W
- b. quadrilateral X
- c. quadrilateral Y
- d. quadrilateral Z



Quadrilateral Y



Quadrilateral Z


9) Which quadrilateral has a 90° angle?

- a. quadrilateral W
- b. quadrilateral X
- c. quadrilateral Y
- d. quadrilateral Z

10) Which sentence is true?

- a. All rhombuses are squares.
- b. All rectangles are squares.
- c. All rectangles are rhombi.
- d. All squares are rectangles.

11) Which polygon never has a right angle?

- a. square
- b. trapezoid
- c. parallelogram
- d. traditional rhombus 

12) Which quadrilateral could have only 2 right angles?

- a. rectangle
- b. square
- c. trapezoid
- d. traditional rhombus

13) Which of the following is not a parallelogram?

- a. rhombus
- b. square
- c. rectangle
- d. kite

14) Which of the following is not a quadrilateral?

- a. triangle
- b. trapezoid
- c. rectangle
- d. rhombus



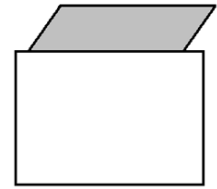
15) Which of these shapes must have perpendicular lines?

- a. square
- b. kite
- c. triangle
- d. trapezoid

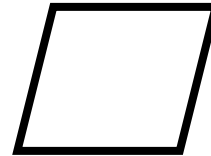
16) Which of these polygons could never have parallel lines?

- a. triangle
- b. rectangle
- c. square
- d. ray

17) What could be the name of the shape behind the white wall?



18) Write 4 names for the figure to the right.



19) Explain why a square can be identified as a rhombus.

20) Draw a trapezoid and explain why a trapezoid can never be a square.

21) Draw two lines that are parallel.

22) Draw two perpendicular rays that do not share any points.

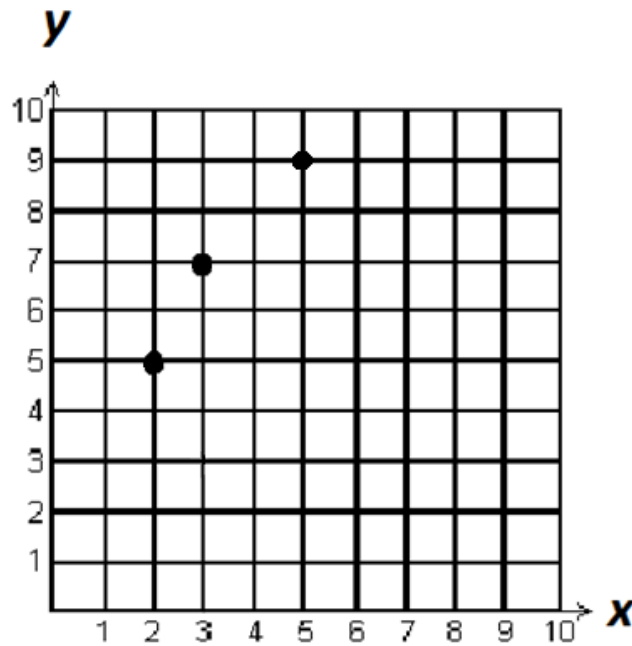
23) Draw two lines that point to the opposite sides in the trapezoid below.



24) The coordinate grid below has three points plotted.

Which point could also be plotted on the grid so that the four points form the vertices of a trapezoid? Select your answer AND draw the shape on the grid (connect the dots).

- a. (1, 5)
- b. (2, 8)
- c. (3, 7)
- d. (2, 3)



Hint: Vertices means "corners."