Fifth Grade Cluster 7 Assessment – Geometry

This assessment assesses students' ability to:

- Identify attributes of a two-dimensional shape in a hierarchy based on its category and the categories for which it is a subcategory.
- Classify two-dimensional figures into categories based on their properties.

NCSCOS 2017 Standards:

Standard	Questions
NC.5.G.3	1, 2, 3, 5, 6, 7, 9, 10
NC.5.G.1	4, 8

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Question	Standard	Answer
1	NC.5.G.3	B
2	NC.5.G.3	C
3	NC.5.G.3	D
4	NC.5.G.1	B
5	NC.5.G.3	A

Question	Standard	Answer
6	NC.5.G.3	D
7	NC.5.G.3	A
8	NC.5.G.1	C
9	NC.5.G.3	B
10	NC.5.G.3	Rubric

Rubric Scoring Guide:

Question 10 (4 points)

Student receives 1 point for each of the following:

- Student states that the shape is a parallelogram.
- Student states that the shape has 2 pairs of opposite parallel sides, which makes it a parallelogram.
- Student states that the shape is not a square.
- Student states that the shape is not a square because all squares have 4 right angles. This shape does not have 4 right angles.

Student Name: _____ Date: _____

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1. Which of the following is an attribute of all rhombuses?

   A two acute angles maybe?
   B four equal sides
   C four right angles Square
   D no sides with equal length polygon

2. Which statement is true?

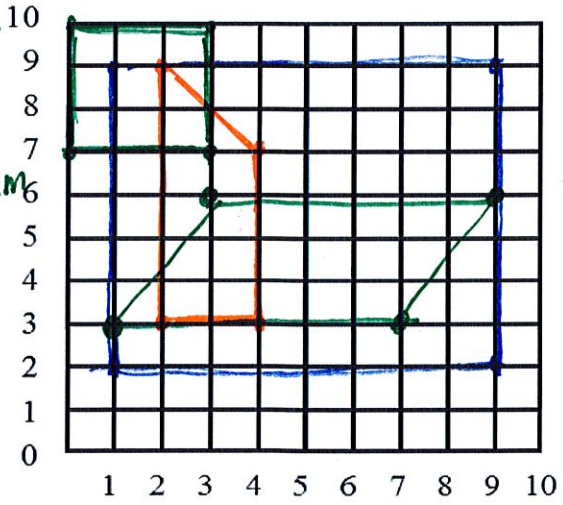
   A All quadrilaterals have opposite parallel sides.
   B All trapezoids have two obtuse angles.
   C All rectangles have opposite sides that are the same length.
   D All hexagons have six sides with equal length.

3. Which attribute is always an attribute for both rectangles and squares?

   A exactly one pair of opposite parallel sides
   B exactly 2 equal sides
   C 4 equal sides
   D 4 right angles

4. Deana made mystery shapes on a coordinate grid by listing the coordinates. Her friends had to connect the coordinates in order, connecting the last one to the first one. Which set of coordinates will make a trapezoid?

   A (0, 7) (3, 7) (3, 10) (0, 10) Square
   B (2, 3) (2, 9) (4, 7) (4, 3) trapezoid
   C (1, 2) (1, 9) (9, 9) (9, 2) rectangle
   D (1, 3) (3, 6) (9, 6) (7, 3) parallelogram



5. Which name could be used to describe this shape?

   A parallelogram
   B square
   C trapezoid
   D kite

6. Manuel drew this shape on his paper.

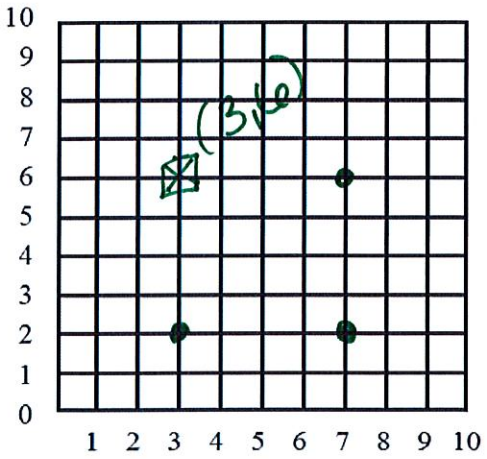
He labeled the shape correctly with one of the names below. Which name could he have used?

A kite
B parallelogram
C rectangle
D quadrilateral

7. Which of the following statements is true?

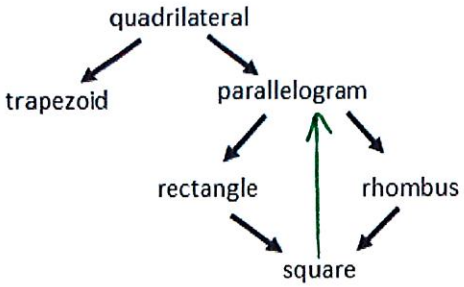
A All squares are rectangles.
B All parallelograms are rhombuses.
C All rectangles are rhombuses.
D All quadrilaterals are trapezoids.

8. Caleb made a rectangle on this coordinate grid. Three of the vertices were located at the following points: (3,2), (7,2), and (7,6). What is the location of the fourth vertex?



A (6, 3)
B (3, 5)
C (3, 6)
D (6, 6)

9. Donalda drew this diagram to show how quadrilaterals are related:

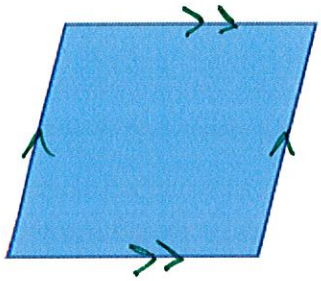


Which of the following statements can be made about quadrilaterals using Donalda's diagram?

A Some trapezoids are not quadrilaterals.
B A square is one kind of parallelogram.
C A parallelogram is a special kind of rectangle.
D A rhombus is one kind of rectangle.

Open Response Questions:

10. Kimiko drew this rhombus on her paper:



Erico said, "I like your parallelogram!" Is Kimiko's shape a parallelogram? Use the attributes of the shape to explain your thinking.

Yes opposite sides are parallel

Gabriella said, "That's a great square!" Is Kimiko's shape a square? Use the attributes of the shape to explain your thinking.

Not a square - no right angles

it does have all the same length sides but it also needs 90° angles!