

Mathematics Grade 5 Unit 6 Pre Assessment

1. MCC5.G.3 (DOK 2)

Identify the correct statement.

- A. Some trapezoids are parallelograms. Some parallelograms are rhombi. Therefore some rhombi must be trapezoids.
- B. All squares are rectangles. All rectangles are parallelograms. Therefore all squares must be parallelograms.
- C. Some parallelograms are rectangles. All rectangles are trapezoids. Therefore all trapezoids must be parallelograms.
- D. All rhombi are quadrilaterals. No rhombi are trapezoids. Therefore no trapezoids can be quadrilaterals.

2. MCC5.G.3 (DOK 2)

Some acute triangles are equilateral triangles. No equilateral triangles are scalene triangles. Therefore...

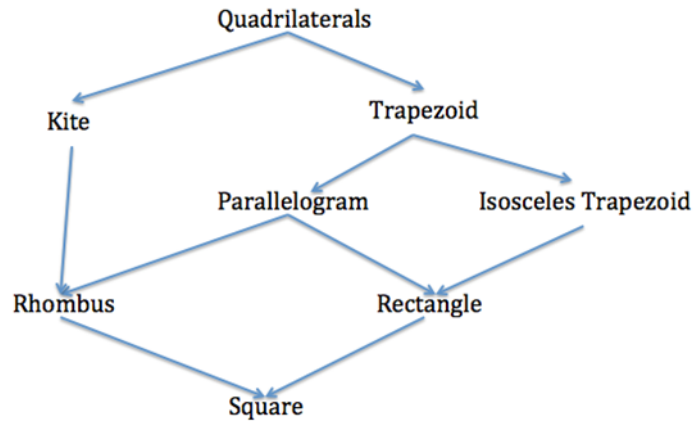
- A. All acute triangles are scalene triangles.
- B. No equilateral triangles are acute triangles.
- C. No acute triangles are equilateral triangles.
- D. These statements do not define a relationship between acute triangles and scalene triangles.

3. MCC5.G.3 (DOK 3)

How can it be that all kites are quadrilaterals and all parallelograms are quadrilaterals, but no parallelograms are kites? Justify your answer using complete sentences.

4. MCC5.G.3 (DOK 3)

James believes that rhombi are identical to rectangles because they are on the same level of the diagram below. Is he correct? Explain your answer using complete sentences.



5. MCC5.G.3 (DOK 2)

All rhombi are parallelograms. All parallelograms are trapezoids. Therefore

- A. All rhombi must be trapezoids.
- B. Some rhombi must be trapezoids.
- C. No rhombi can be trapezoids.
- D. All trapezoids must be rhombi.

6. MCC5.G.3 (DOK 3)

A parallelogram with four right angles is a rectangle. A rectangle with four congruent sides is a square. Explain what is necessary to classify a parallelogram as a square.

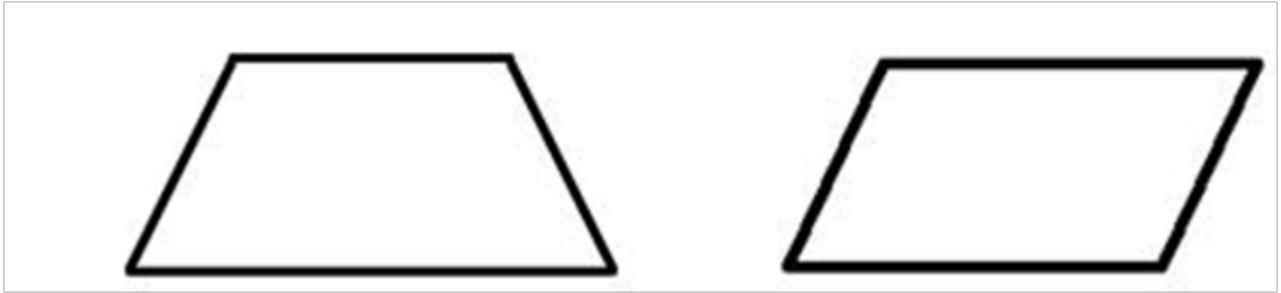
7. MCC5.G.3 (DOK 2)

Dana told her brother that a square is also a parallelogram. Is she correct?

- A.** No, because only squares have right angles.
- B.** Yes, because squares and parallelograms have all equal length sides.
- C.** No, because parallelograms must have slanted sides; squares don't.
- D.** Yes, because squares have 2 sets of parallel sides making them an example of a parallelogram.

8. MCC5.G.3 (DOK 2)

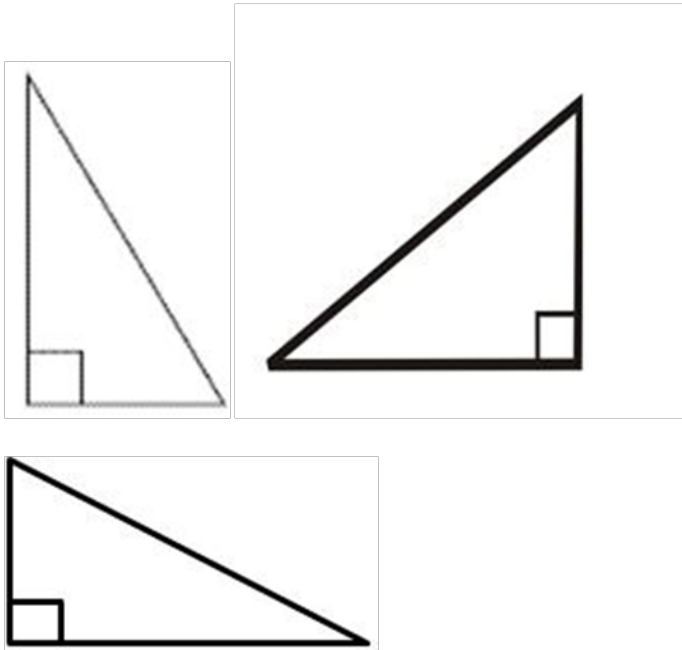
What do these quadrilaterals have in common?



- A. Both have all equal length sides.
- B. Both have 2 acute and 2 obtuse angles.
- C. Both have 2 sets of parallel lines.
- D. Both have at least one right angle.

9. MCC5.G.3 (DOK 2)

Look at the three triangles below. Choose the best answer that describes the attributes that all three triangles have in common.



- A. All 3 are right triangles.
- B. All 3 are isosceles triangles.
- C. All 3 are right, scalene triangles.
- D. All 3 are right, isosceles triangles.

10. MCC5.G.3 (DOK 3)

Figure U is a rhombus and all rhombi are parallelograms; therefore, figure U must be a parallelogram.

Is this statement correct?

Justify your answer using complete sentences.



11. MCC5.G.4 (DOK 2)

Classify the figure below by underlining **ALL** names possible for the figure. Of the names underlined, circle the **BEST** name for the figure.



Triangle

Scalene Triangle

Isosceles Triangle

Equilateral Triangle

Right Triangle

Acute Triangle

Obtuse Triangle

12. MCC5.G.4 (DOK 2)

Each of the following is an attribute of a rectangle **EXCEPT** ...

- A. It must have four sides.
- B. It must have 2 sets of parallel sides.
- C. It must have opposite angles that are congruent.
- D. All sides must be congruent.

13. MCC5.G.4 (DOK 2)

Which of the following characteristics of rhombi help to distinguish them from kites?

- A. Rhombi have opposite angles that are congruent.
- B. Rhombi have 2 sets of congruent sides.
- C. Rhombi have four congruent sides.
- D. Rhombi have four congruent angles.

14. MCC5.G.4 (DOK 3)

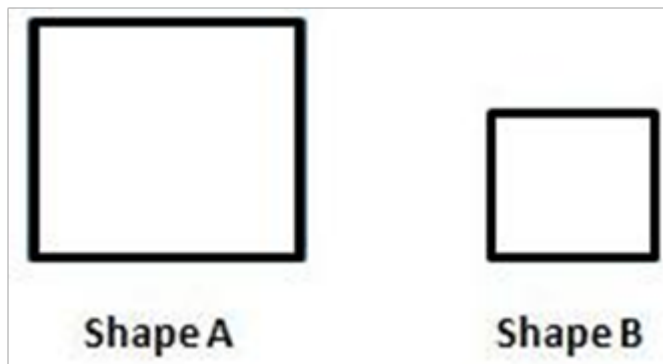
James stated that the all four sided figures with four congruent sides are squares. His friend Quincy disagreed because he said rhombi have four congruent sides. Who is correct? Justify your answer using complete sentences.

15. MCC5.G.4 (DOK 3)

What is the best classification for a polygon with four sides, none of which are parallel to each other? Justify your answer using complete sentences.

16. MCC5.G.4 (DOK 2)

Kim made the two shapes below using her computer.



Kim believes that she has created rectangles; however she shows them to Sandra who tells her they cannot be rectangles because they are different sizes. What justification can Kim use to convince Sandra that she is correct?