

Grade 3 · Quadrilaterals and Partitioning Shapes · Quiz

Common Core 3.G.A.1, 3.G.A.2 · mathovore.fr

Name: _____ Date: ____/____/____ Score: _____

Ten multiple choice questions check that you can name quadrilaterals, compare their attributes and describe equal parts of a shape. Read each question, look at any picture, and choose the one best answer. The explanations show the usual mistakes.

Grade 3 Common Core: 3.G.A.1 · 3.G.A.2

Questions

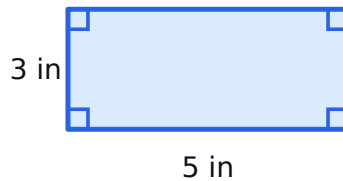
Question 1

How many sides does every quadrilateral have?

- A. 4 sides
- B. 3 sides
- C. 5 sides
- D. 6 sides

Question 2

What is the best name for this shape?



A shape with 4 right angles.

- A. A rectangle
- B. A square
- C. A rhombus
- D. A triangle

Question 3

Which attribute do squares and rectangles both have?

- A. 4 equal sides

- B. Exactly 2 right angles
- C. 5 vertices
- D. 4 right angles

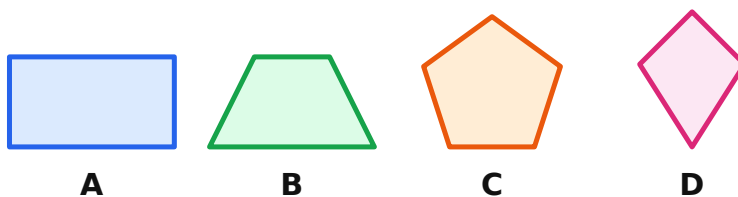
Question 4

Which statement is true?

- A. Every rectangle is a square.
- B. Every square is a rectangle.
- C. Every rhombus has 4 right angles.
- D. Every quadrilateral has 4 equal sides.

Question 5

Which shape is NOT a quadrilateral?



Shapes A to D.

- A. Shape A
- B. Shape B
- C. Shape C
- D. Shape D

Question 6

The rectangle is cut into 4 parts with equal areas. One part is shaded. What fraction of the rectangle is shaded?

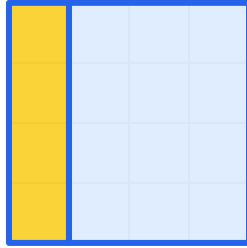


4 equal parts, 1 shaded.

- A. $\frac{1}{3}$
- B. $\frac{1}{4}$
- C. $\frac{3}{4}$
- D. $\frac{1}{2}$

Question 7

Why can this square NOT be called two halves?



A square cut into 2 parts.

- A. The shape has four sides.
- B. Halves must be triangles.
- C. The two parts do not have equal areas.
- D. One part is shaded.

Question 8

The rectangle has an area of 18 square units and is cut into 6 equal parts. What is the area of one part?



6 equal parts.

- A. 6 square units
- B. 3 square units
- C. 9 square units
- D. 12 square units

Question 9

A shape has 4 sides that are all equal, and none of its corners are right angles. What is it?

- A. A rhombus
- B. A square
- C. A rectangle
- D. A pentagon

Question 10

Sofia cuts a rectangular pan of cornbread into 8 equal pieces and takes 1 piece. What fraction of the pan is her piece?

- A. $\frac{1}{7}$
- B. $\frac{8}{1}$
- C. $\frac{1}{16}$
- D. $\frac{1}{8}$

Answer key

1. **A** – The word quadrilateral names a closed shape with 4 sides. A triangle has 3 sides, and a pentagon has 5.
2. **A** – The shape has 4 right angles, so it is a rectangle. The sides are 5 in and 3 in, so it is not a square.
3. **D** – Every square and every rectangle has 4 right angles. Only squares must have 4 equal sides.
4. **B** – A square has 4 right angles, so it is a rectangle. A rectangle with sides 6 in and 3 in is not a square.
5. **C** – Shape C is a pentagon with 5 sides. The other three shapes each have 4 sides.
6. **B** – There are 4 equal parts, so each is $\frac{1}{4}$. The fraction $\frac{1}{3}$ comes from counting 1 shaded and 3 unshaded parts.
7. **C** – Halves need equal areas. The narrow part has 4 square units and the wide part has 12, so neither part is one half.
8. **B** – $18 \div 6 = 3$. Choosing 6 mixes up the number of parts with the area of one part.
9. **A** – Four equal sides make a rhombus. A square would need 4 right angles too.
10. **D** – 8 equal pieces means each piece is $\frac{1}{8}$ of the pan. Choosing $\frac{1}{7}$ counts the other pieces instead of all 8.

Remember:

- A quadrilateral has exactly 4 sides and 4 vertices.
- A rectangle has 4 right angles; a rhombus has 4 equal sides.
- A square has 4 equal sides and 4 right angles, so it is both a rectangle and a rhombus.
- Cutting a shape into 4 equal-area parts makes each part $\frac{1}{4}$ of the whole.
- Equal parts can have different shapes if their areas are equal.