



# Classifying 2D Shapes

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Grade: Grade 5

## Part A: Multiple Choice

Circle the best answer for each question.

1. Which statement about diagonals is FALSE?

- A) A square's diagonals are equal and perpendicular
- B) A rectangle's diagonals are equal but not perpendicular
- C) A rhombus's diagonals are perpendicular but not always equal
- D) A parallelogram's diagonals are always equal

2. A quadrilateral has two pairs of parallel sides, four equal sides, and no right angles. What is it?

- A) Square
- B) Rectangle
- C) Rhombus
- D) Trapezoid

3. How many categories does a square belong to: square, rhombus, rectangle, parallelogram, quadrilateral?

- A) 2
- B) 3
- C) 4
- D) 5

4. A regular polygon has an interior angle sum of  $1440^\circ$ . How many sides does it have?

- A) 8
- B) 9
- C) 10
- D) 12

## Part B: Fill in the Blank

Write the correct answer on each line.

1. Every rectangle is a parallelogram, but not every parallelogram is a \_\_\_\_\_ because parallelograms do not require right angles.
2. The diagonals of a kite cross at right angles, and exactly \_\_\_\_\_ of the diagonals is bisected by the other.
3. If a regular polygon has an exterior angle of  $40^\circ$ , it has \_\_\_\_\_ sides.
4. A shape that is both a rectangle and a rhombus must be a \_\_\_\_\_.
5. The number of diagonals in any polygon with  $n$  sides is  $n \times (n - 3) \div$  \_\_\_\_\_.

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4. A regular polygon has an interior angle sum of  $1440^\circ$ . How many sides does it have?

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### Part B: Fill in the Blank

Write the correct answer on each line.

1. Every rectangle is a parallelogram, but not every parallelogram is a rectangle because parallelograms do not require right angles.
2. The diagonals of a kite cross at right angles, and exactly 1 of the diagonals is bisected by the other.
3. If a regular polygon has an exterior angle of  $40^\circ$ , it has 9 sides.
4. A shape that is both a rectangle and a rhombus must be a square.
5. The number of diagonals in any polygon with  $n$  sides is  $n \times (n - 3) \div$  2.