



# Classifying 2D Shapes

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

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

Grade: Grade 5

## Part A: Multiple Choice

Circle the best answer for each question.

1. What is the sum of interior angles in a hexagon?

- A)  $540^\circ$
- B)  $720^\circ$
- C)  $900^\circ$
- D)  $1080^\circ$

2. A regular polygon has each interior angle measuring  $135^\circ$ . How many sides does it have?

- A) 6
- B) 7
- C) 8
- D) 10

3. Which of these shapes always has perpendicular diagonals?

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

4. A convex polygon has 5 sides. One of its angles is missing. The other four angles are  $100^\circ$ ,  $110^\circ$ ,  $120^\circ$ , and  $95^\circ$ . What is the missing angle?

- A)  $105^\circ$
- B)  $115^\circ$
- C)  $125^\circ$
- D)  $135^\circ$

## Part B: Fill in the Blank

Write the correct answer on each line.

1. Each interior angle of a regular decagon measures \_\_\_\_\_ degrees.
2. A polygon with all sides and all angles equal is called a \_\_\_\_\_ polygon.
3. The number of triangles formed by drawing all diagonals from one vertex of a hexagon is \_\_\_\_\_.
4. A regular pentagon has interior angles of  $108^\circ$  each and \_\_\_\_\_ lines of symmetry.
5. The sum of exterior angles of any convex polygon is always \_\_\_\_\_ degrees.

**Part A: Multiple Choice**

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1. What is the sum of interior angles in a hexagon?

- A)  $540^\circ$
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- C)  $900^\circ$
- D)  $1080^\circ$

2. A regular polygon has each interior angle measuring  $135^\circ$ . How many sides does it have?

- A) 6
- B) 7
- C) 8
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3. Which of these shapes always has perpendicular diagonals?

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

4. A convex polygon has 5 sides. One of its angles is missing. The other four angles are  $100^\circ$ ,  $110^\circ$ ,  $120^\circ$ , and  $95^\circ$ . What is the missing angle?

- A)  $105^\circ$
- B)  $115^\circ$
- C)  $125^\circ$
- D)  $135^\circ$

**Part B: Fill in the Blank**

Write the correct answer on each line.

1. Each interior angle of a regular decagon measures 144 degrees.
2. A polygon with all sides and all angles equal is called a regular polygon.
3. The number of triangles formed by drawing all diagonals from one vertex of a hexagon is 4.
4. A regular pentagon has interior angles of  $108^\circ$  each and 5 lines of symmetry.
5. The sum of exterior angles of any convex polygon is always 360 degrees.