



## Interior and Exterior of a Quadrilateral

### A. Choose the Correct Answer:

1. The region enclosed by the sides of a quadrilateral is called its:

- a) Exterior
- b) Area
- c) Interior
- d) Diagonal

2. A point that lies on the extension of one of the sides of a quadrilateral is in the:

- a) Interior
- b) Exterior
- c) Diagonal
- d) Vertex

3. The number of exterior angles in any quadrilateral is:

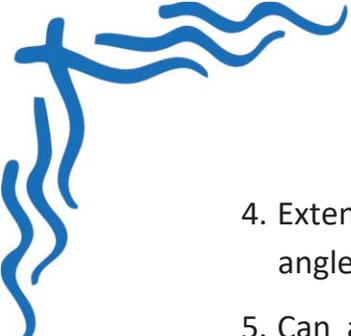
- a) 2
- b) 3
- c) 4
- d) 5

### B. Write the Missing Terms to Complete the Sentences:

1. The space inside a quadrilateral is called its \_\_\_\_\_ region.
2. The angle formed outside a quadrilateral when a side is extended is called an \_\_\_\_\_ angle.
3. The sum of all exterior angles of any quadrilateral is \_\_\_\_\_ degrees.
4. The intersection point of two sides of a quadrilateral lies in its \_\_\_\_\_.
5. A point not lying inside or on the quadrilateral lies in the \_\_\_\_\_ region.

### C. Figure out the answers to these questions:

1. Draw a quadrilateral and mark a point in its interior and another in its exterior.
2. Identify whether the given point lies in the interior, on the boundary, or exterior of the quadrilateral PQRS.
3. What is the sum of all exterior angles of a convex quadrilateral? Justify your answer.

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4. Extend any one side of a quadrilateral and show the corresponding exterior angle. Name the interior and exterior angles at that vertex.
  5. Can a point be on the boundary of a quadrilateral and still not lie in the interior? Explain with a diagram.

**D. Mark each sentence with a True (✓) or False (✗):**

1. The sum of interior and exterior angles at any vertex of a quadrilateral is  $180^\circ$ .
2. A point on one of the sides of a quadrilateral lies in its exterior.
3. Interior angles of a quadrilateral add up to  $360^\circ$ .
4. Exterior angles are formed only by extending opposite sides.
5. A quadrilateral has four exterior angles.

**E. Challenge yourself with these questions:**

1. Using a sheet of paper, fold and unfold a quadrilateral to visually identify its interior and exterior.
2. Create a quadrilateral using straws and thread. Place a button inside it and describe its location in terms of interior and exterior.
3. Write a short paragraph on how interior and exterior angles help in identifying the shape of a quadrilateral.
4. If three interior angles of a quadrilateral are  $90^\circ$ ,  $80^\circ$ , and  $85^\circ$ , find the fourth interior angle and the corresponding exterior angle at that vertex.
5. Mark four points: two in the interior and two in the exterior of a quadrilateral. Describe their positions using the concept of regions.