

CHAPTER-1 | Patterns in Mathematics

QUIZ PART-13

1. The number of sides in the sequence of regular polygons follows which number sequence?
- Powers of 2
 - Counting numbers
 - Fibonacci sequence
 - Powers of 3

Explanation: The sequence of the number of sides in regular polygons (triangle, square, pentagon, etc.) follows the counting numbers starting at 3. (B)

2. What is the number of corners in a regular polygon related to?
- Triangular numbers
 - Cube numbers
 - Counting numbers
 - Even numbers

Explanation: The number of corners in each regular polygon corresponds to the same sequence as the number of sides, which is a sequence of counting numbers. (C)

3. The sequence of shapes like triangles, squares, pentagons, hexagons, etc., represents:
- Powers of 2
 - Fibonacci sequence
 - Regular polygons
 - Triangular numbers

Explanation: The sequence of shapes such as triangle, square, pentagon, hexagon, and so on, are regular polygons. (C)

4. What does the term "regular" refer to in regular polygons?
- Equal lengths of sides and angles
 - Only equal angles
 - Irregular shapes
 - Shapes with random sizes

Explanation: The term regular in regular polygons refers to shapes with equal-length sides and equal angles. (A)

5. In the sequence of complete graphs, what do you get by counting the lines?
- Triangular numbers
 - Powers of 2
 - Cube numbers
 - A number sequence related to vertices

Explanation: The sequence of complete graphs (K₂, K₃, K₄, etc.) is related to the number of lines between vertices. (D)

6. What is the number of lines in K₂, K₃, K₄, K₅, K₆ sequences called?
- Triangular numbers
 - Counting numbers
 - Fibonacci sequence
 - Powers of 3

Explanation: The number of lines in the K₂, K₃, K₄, K₅, K₆ graphs corresponds to the counting numbers related to the number of vertices. (B)

7. The number of sides in the sequence of regular polygons starts at:
- 2
 - 1
 - 3
 - 4

Explanation: The sequence of regular polygons starts with a triangle (3 sides), followed by polygons with more sides. (C)

8. In the sequence of regular polygons, a shape with 9 sides is called a:
- Heptagon
 - Octagon
 - Nonagon
 - Decagon

Explanation: A polygon with 9 sides is called a nonagon. (C)

9. The regular polygon with 10 sides is called a:
- Heptagon
 - Decagon
 - Pentagon
 - Hexagon

Explanation: A polygon with 10 sides is called a decagon. (B)

10. The pattern of regular polygons is closely related to:
- Powers of 2
 - Odd numbers
 - Counting numbers
 - Triangular numbers

Explanation: The sequence of regular polygons, starting with a triangle and continuing with polygons having 4, 5, 6 sides, is closely related to counting numbers. (C)