

CHAPTER-4 | Exploring Some Geometric Themes**QUIZ
PART-03**

1. The Koch Snowflake was first described in:

- A. 1804
- B. 1854
- C. 1904
- D. 1954 (C)

Explanation : The Koch Snowflake was first described in 1904 by the Swedish mathematician Von Koch.

2. The Koch Snowflake was introduced by:

- A. Sierpinski
- B. Euclid
- C. Von Koch
- D. Pythagoras (C)

Explanation: The fractal was described by the Swedish mathematician Von Koch.

3. The starting shape for a Koch Snowflake is an:

- A. Square
- B. Circle
- C. Equilateral Triangle
- D. Rectangle (C)

Explanation: The construction begins with an equilateral triangle.

4. In the Koch Snowflake construction, each side is first divided into:

- A. 2 equal parts
- B. 3 equal parts
- C. 4 equal parts
- D. 5 equal parts (B)

Explanation: Each side is divided into 3 equal parts before creating the bump.

5. After dividing a side into three equal parts, an equilateral triangle is raised on the:

- A. First part
- B. Last part
- C. Middle part
- D. Entire side (C)

Explanation : The middle third is used to construct the new equilateral triangle.

6. Each side of the original figure is replaced by a:

- A. Circular arc
- B. Straight line
- C. Bump-shaped structure
- D. Rectangle (C)

Explanation : The chapter describes replacing each side with a bump-shaped structure.

7. If the starting triangle has 3 sides, after Step 1 the figure has:

- A. 6 sides
- B. 9 sides
- C. 12 sides
- D. 15 sides (C)

Explanation : Each side becomes 4 smaller sides, so $3 \times 4 = 12$ sides.

8. In every new step of the Koch Snowflake, the number of sides is multiplied by:

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

Explanation : Every side is replaced by 4 smaller sides, so the number of sides quadruples each step.

9. The Koch Snowflake is an example of a:

- A. Prism
- B. Fractal
- C. Pyramid
- D. Cylinder (B)

Explanation : The Koch Snowflake is a famous fractal showing self-similarity.

10. The pattern of the Koch Snowflake is formed by:

- A. Repeating the same construction rule
- B. Drawing random triangles
- C. Adding circles
- D. Removing squares (A)

Explanation : The same process is repeated on every side at each step, creating the fractal pattern.