CBSE

Class-6 | Maths

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Chapter – 9 | Symmetry

QUIZ-01

1. A figure is said to be symmetrical when:
   A. All its sides are equal
   B. It has curved boundaries
   C. Some parts repeat in a definite pattern
   D. It has no angles   (C)

   Explanation : Symmetry means repetition of parts in a definite pattern.

2. A line that divides a figure into two identical halves that overlap exactly is called:
   A. Median   B. Line of symmetry
   C. Diagonal   D. Axis   (B)

   Explanation : A line of symmetry divides a figure into two mirror halves.

3. How many lines of symmetry does a square have?
   A. 2
   B. 3
   C. 4
   D. 6   (C)

   Explanation : A square has two diagonals and two medians as lines of symmetry.

4. Which of the following figures has no line of symmetry?
   A. Square
   B. Rectangle
   C. Scalene triangle
   D. Equilateral triangle   (C)

   Explanation : A scalene triangle has all sides unequal, so no line of symmetry.

5. A rectangle that is not a square has how many lines of symmetry?
   A. 1
   B. 2
   C. 3
   D. 4   (B)

   Explanation : A rectangle has two lines of symmetry: vertical and horizontal.

6. If a figure looks exactly the same after a rotation of 180°, it is said to have:
   A. Only reflection symmetry
   B. No symmetry
   C. Rotational symmetry
   D. Line symmetry only   (C)

   Explanation : Rotational symmetry occurs when a figure matches itself after rotation.

7. The smallest angle of rotational symmetry of a square is:
   A. 180°
   B. 360°
   C. 120°
   D. 90°   (D)

   Explanation : A square matches itself after a rotation of 90°.

8. How many angles of symmetry does a square have?
   A. 2   B. 3
   C. 4   D. 8   (C)

   Explanation : A square has rotational symmetry at 90°, 180°, 270° and 360°.

9. Every figure, when rotated through which angle, comes back to its original position?
   A. 90°
   B. 180°
   C. 270°
   D. 360°   (D)

   Explanation : A full rotation of 360° always brings a figure back to its original position.

10. The smallest angle of symmetry of a figure is 120°. How many angles of symmetry does it have?
    A. 2   B. 3
    C. 4   D. 6   (B)

    Explanation : 360° ÷ 120° = 3 angles of symmetry.