



# Nishant eAcademy

## CBSE Sample Paper Class 9 Mathematics 2023-24

Subject: Mathematics Class: 9 Maximum Marks: 80 Duration: 3 hours

Section A: Objective Type Questions (1 mark each)

1. The value of  $\sqrt{64}$  is: (a) 8 (b) 4 (c) 16 (d) 6
2. The median of the data 5, 7, 3, 9, 2, 6, 4 is: (a) 4 (b) 5 (c) 6 (d) 7
3. If the circumference of a circle is 22 cm, then its radius is: (a) 3.5 cm (b) 7 cm (c) 11 cm (d) 14 cm

Section B: Short Answer Type Questions (2 marks each)

4. Solve the equation:  $2x + 5 = 17$
5. Find the value of 'k' if the line  $y = 2x + k$  passes through the point (3, 7).
6. The angles of a triangle are in the ratio 2:3:5. Find the measure of each angle.

Section C: Long Answer Type Questions (4 marks each)

7. Solve the following simultaneous equations:  $3x - 2y = 8$   $4x + 5y = 1$
8. A cylindrical tank has a radius of 7 cm and height of 10 cm. Find its volume.
9. In a class of 40 students, 20 play cricket, 15 play football, and 10 play both cricket and football. How many students play either cricket or football?

Section D: Higher Order Thinking Skills Questions (6 marks each)

10. The length of a rectangular field is 8 meters more than its breadth. If the perimeter of the field is 96 meters, find its length and breadth.
11. A bag contains 5 red balls and 7 blue balls. Two balls are drawn at random without replacement. What is the probability that both balls are blue?
12. The cost of 2 notebooks and 3 pens is Rs. 80, while the cost of 3 notebooks and 2 pens is Rs. 75. Find the cost of each notebook and each pen.