

Mathematics — Ganita Manjari

Chapter 1 Test 1

Orienting Yourself: The Use of Coordinates

Class IX | 2026-27

Time Allowed: 45 Minutes

Maximum Marks: 25

General Instructions

1. All 13 questions are compulsory. Choose one option in A; show working in B-D.
2. Show the main steps and give reasons where asked. Calculators are not allowed.
3. Read coordinate scales carefully. Give exact lengths and state units.

SECTION A

(5 questions × 1 mark = 5 marks)

1. The coordinates of the origin are:

- (A) (1, 0) (B) (0, 0)
(C) (0, 1) (D) (1, 1)

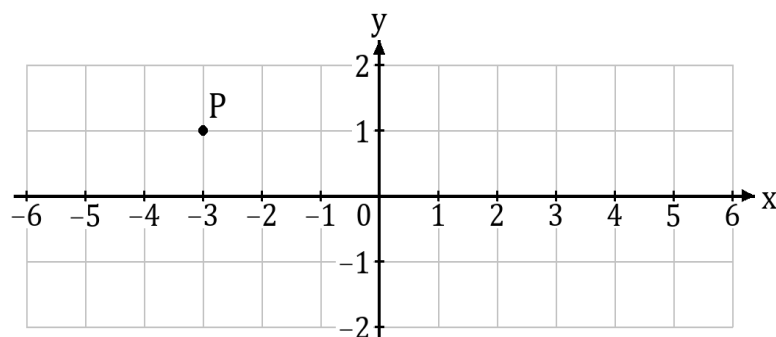
2. The point $(-4, 6)$ lies in:

- (A) Quadrant I
(B) Quadrant IV
(C) Quadrant II
(D) Quadrant III

3. For every point on the x-axis, the y-coordinate is:

- (A) positive (B) negative
(C) equal to x (D) zero

4. Read the coordinates of P.



- (A) $(-3, 1)$ (B) $(1, -3)$
(C) $(3, 1)$ (D) $(-3, -1)$

5. The distance of $(-8, 5)$ from the y-axis is:

- (A) 5 units (B) 8 units
(C) -8 units (D) 13 units

SECTION B

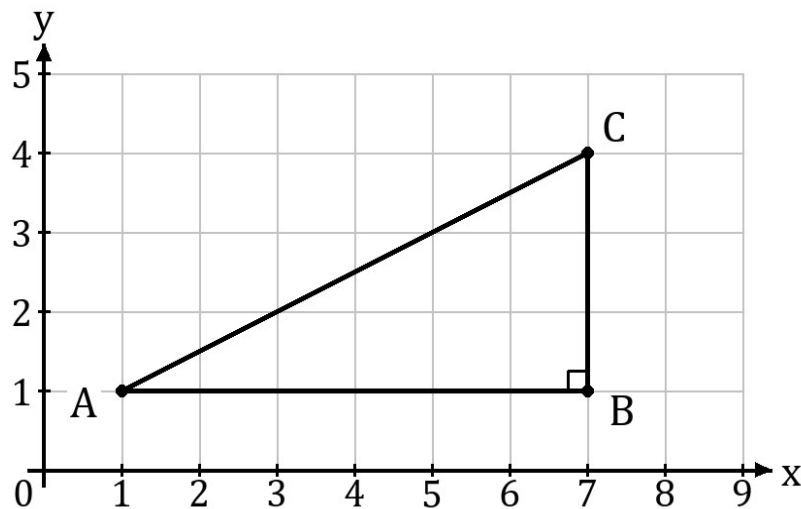
(4 questions $\times$ 2 marks = 8 marks)

6. Write the coordinates of a point reached from the origin by moving 4 units left and then 3 units down. State its quadrant.
7. Find the distance between $A(-5, 0)$ and $B(7, 0)$.
8. Find the image of $P(6, -2)$ in the y -axis. State which coordinate changes.
9. If $(2a + 1, 5) = (7, b - 2)$, find a and b .

SECTION C

(3 questions $\times$ 3 marks = 9 marks)

10. Read A , B and C from the grid. Identify the right angle and calculate AB and AC .



11. Find the midpoint M of $A(-4, 6)$ and $B(8, -2)$. Verify that AM and MB are equal.
12. Use distances to check whether $A(-6, -8)$, $O(0, 0)$ and $B(3, 4)$ are collinear. Identify the point between the other two.

SECTION D

(1 application question $\times$ 3 marks = 3 marks)

13. On a map, home is at $(-2, 1)$ and school at $(4, 9)$. One unit represents 50 m. Find the straight-line distance and the shortest route along horizontal and vertical streets. How much shorter is the straight route?