

Mathematics — Ganita Manjari

Chapter 1 Test 5

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 two coordinate axes divide the plane into how many quadrants?

- (A) 1 (B) 2
(C) 3 (D) 4

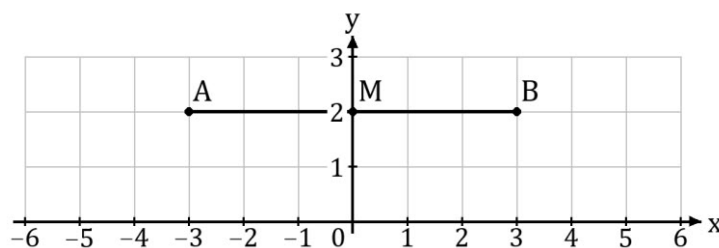
2. Interchanging the coordinates of $(-2, 5)$ gives a point in:

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

3. Which statement about the origin is correct?

- (A) It lies only on the x-axis.
(B) It lies on both axes.
(C) It lies in Quadrant I.
(D) It lies only on the y-axis.

4. M is halfway along AB. Read the coordinates of M.



- (A) $(2, 0)$ (B) $(0, 0)$
(C) $(0, 2)$ (D) $(2, 2)$

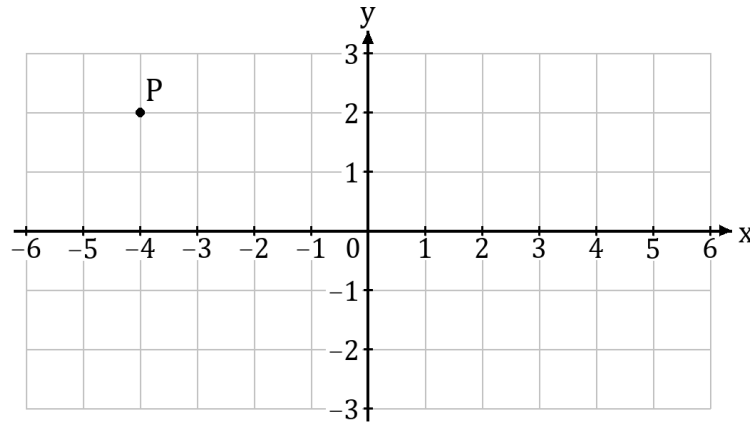
5. Two points differ by 3 units horizontally and 4 units vertically. Their distance is:

- (A) 7 units (B) 1 unit
(C) 25 units (D) 5 units

SECTION B

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

6. A point in Quadrant IV is 3 units from the x-axis and 5 units from the y-axis. Find its coordinates.
7. Read P and give its separate reflections in the x-axis and in the y-axis.



8. Find the midpoint of S(-5, 7) and T(3, -1). State its quadrant.
9. A(2k - 1, 4) and B(7, -2) lie on a line parallel to the y-axis. Find k.

SECTION C

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

10. Find the two trisection points of A(-8, 3) and B(4, 3), naming the one nearer A as P. State the length of each third.
11. A circle is centred at the origin and has radius 5 units. Classify P(3, 4), Q(1, 2) and R(6, 0) as inside, on or outside the circle.
12. For A(1, 2), B(-2, 1), C(-1, -2) and D(2, -1), show that ABCD is a square and find its area.

SECTION D

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

13. A room extends from $x = -6$ to 6 and $y = -4$ to 4 metres. A 6 m by 2 m rectangular table is centred at the origin with sides parallel to the axes. Give its four corner coordinates and the clearance from each wall.