

Mathematics — Ganita Manjari

Chapter 1 Test 3

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. Every point on the y-axis has x-coordinate:

- (A) 1 (B) -1
(C) equal to y (D) 0

2. In the ordered pair $(8, -3)$, the first entry gives:

- (A) the x-coordinate
(B) the y-coordinate
(C) the distance from the origin
(D) the quadrant number

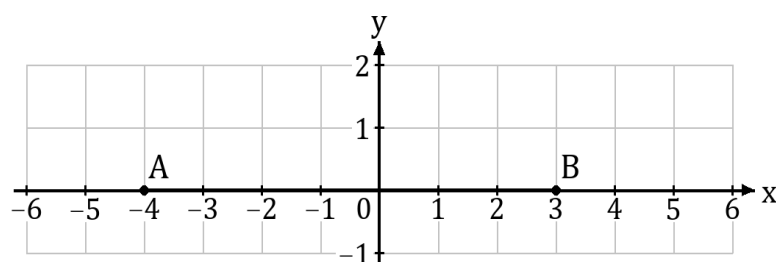
3. Which point lies in Quadrant III?

- (A) $(-2, 5)$ (B) $(-2, -5)$
(C) $(2, -5)$ (D) $(2, 5)$

4. The reflection of $(-4, 7)$ in the x-axis is:

- (A) $(4, 7)$ (B) $(4, -7)$
(C) $(-4, -7)$ (D) $(7, -4)$

5. Find the length of AB from the coordinate diagram.



- (A) 1 unit (B) 3 units
(C) 4 units (D) 7 units

SECTION B

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

6. A point is 3 units right of the y-axis and 7 units below the x-axis. Write its coordinates and its quadrant.
7. For $P(-6, -2)$, find the perpendicular distances from the x-axis and the y-axis.
8. Find the midpoint of $A(-9, 0)$ and $B(3, 0)$. State on which part of the x-axis it lies.
9. Could a coordinate system using only non-negative coordinates locate every point in the plane? Explain with an example.

SECTION C

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

10. Three consecutive vertices of an axis-parallel rectangle are $A(-3, 2)$, $B(5, 2)$ and $C(5, -4)$. Find the fourth vertex D and the area.
11. Find the point on the y-axis that is equidistant from $A(3, 2)$ and $B(-1, 4)$.
12. $A(-4, 0)$, $B(4, 0)$ and $M(0, 3)$ satisfy $MA = MB$. Is M the midpoint of AB ? Justify your answer.

SECTION D

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

13. The room plan uses 1 unit = 1 foot. DE is the doorway. Find its width, the area occupied by the table and the distance of the table's left edge from the y-axis.

