

Mathematics — Ganita Manjari

Chapter 1 Test 2

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)

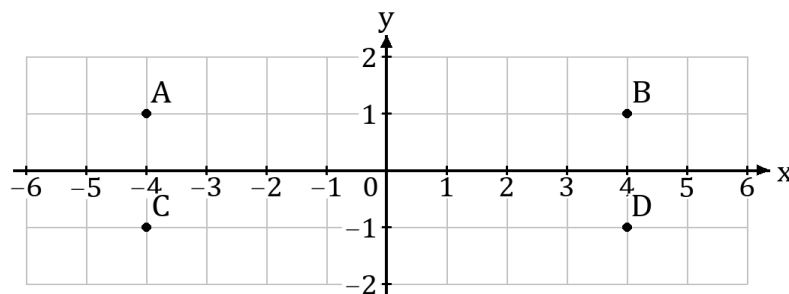
1. The angle between the positive x-axis and positive y-axis is:

- (A) 45° (B) 180°
(C) 90° (D) 360°

2. A point with positive x-coordinate and negative y-coordinate lies in:

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

3. Which labelled point is the reflection of A in the y-axis?



- (A) B (B) C
(C) D (D) A

4. Two distinct points have the same y-coordinate. The line joining them is parallel to:

- (A) the y-axis
(B) the x-axis
(C) both axes
(D) neither axis

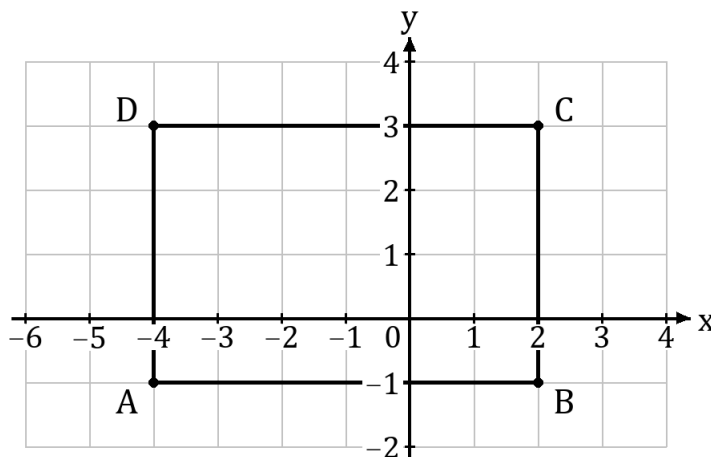
5. The distance of P(5, 12) from the origin is:

- (A) 17 units (B) 7 units
(C) 13 units (D) 169 units

SECTION B

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

6. State the axis on which $A(-2.5, 0)$ and $B(0, 3.5)$ lie. Give their distances from the origin.
7. Find the distance between $P(-3, -5)$ and $Q(-3, 4)$.
8. Read the coordinates of D and find the perimeter of rectangle ABCD.



9. Are $P(7, -2)$ and $Q(-2, 7)$ the same point? State the quadrant of each and explain.

SECTION C

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

10. $A(1, 8)$ and $B(10, -4)$ are joined. Find the two trisection points P and Q, with P closer to A. Verify the length of each third.
11. Show that $A(1, 7)$ and $B(-5, 5)$ lie on one circle centred at $O(0, 0)$. Find its radius and decide whether $C(6, 6)$ is inside or outside it.
12. Calculate the distance between $A(-7, 2)$ and $B(5, -3)$, showing the coordinate differences.

SECTION D

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

13. A screen covers $0 \leq x \leq 500$ and $0 \leq y \leq 300$ pixels. Icon A has centre $(40, 90)$ and radius 50 pixels; icon B has centre $(410, 220)$ and radius 40 pixels. Decide whether each icon fits completely on the screen.