

Mathematics — Ganita Manjari

Chapter 1 Test 6

Orienting Yourself: The Use of Coordinates

Class IX | 2026–27

Time Allowed: 45 Minutes

Maximum Marks: 25

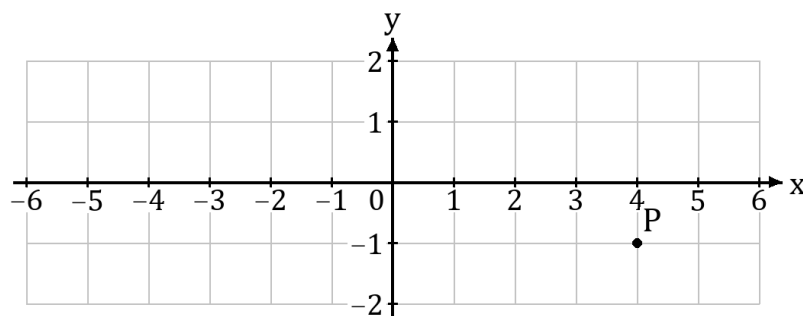
General Instructions

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. In which quadrant does P lie?



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

2. The x-coordinate of $(5, -3)$ is:

- (A) -3
(B) 3
(C) 5
(D) -5

3. Which pair of distinct points lies on a line parallel to the x-axis?

- (A) $(2, 1)$ and $(2, 5)$
(B) $(0, 0)$ and $(3, 2)$
(C) $(-2, 3)$ and $(3, -2)$
(D) $(-1, 4)$ and $(6, 4)$

4. The reflection of $(0, -7)$ in the y-axis is:

- (A) $(0, -7)$
(B) $(0, 7)$
(C) $(7, 0)$
(D) $(-7, 0)$

5. The distance of $(-8, 6)$ from the origin is:

- (A) 14 units
(B) 10 units
(C) 2 units
(D) 100 units

SECTION B

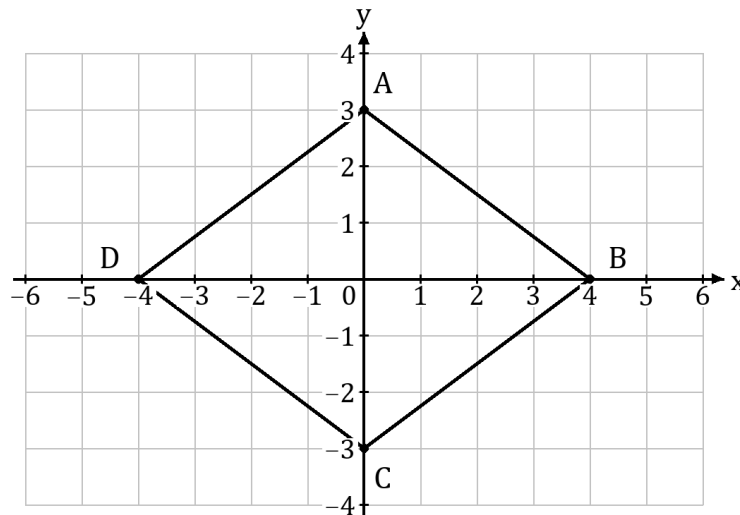
(4 questions $\times$ 2 marks = 8 marks)

6. Calculate the distance between A(-1, -1) and B(2, 3).
7. P is in Quadrant II, its x-coordinate is -4 and its distance from the x-axis is 6 units. Find P and its distance from the y-axis.
8. Find the midpoint of A(1.5, -2) and B(6.5, 4).
9. P(3, -5) is reflected in the x-axis, and its image is reflected in the x-axis again. Find both images and explain the final result.

SECTION C

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

10. A(5, -2) and B have midpoint M(-3, 4). Find B and verify your result.
11. Use the distance test to determine whether A(1, 2), B(4, 6) and C(10, 14) lie on one straight line.
12. Read the vertices of ABCD. Find its perimeter and decide whether it is a square, using its diagonals.



SECTION D

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

13. A screen spans $0 \leq x \leq 600$ and $0 \leq y \leq 400$ pixels. Circular icon A has centre (525, 80) and radius 75; icon B has centre (55, 300) and radius 70. Does A fit? Find the smallest rightward shift needed to make B fit.