



CLASS 9 MATHEMATICS



CHAPTER 1 – THE USE OF COORDINATES



MCQ WORKSHEET | Ganita Manjari | 2026–27

These MCQs are based on the **actual new Chapter 1, “Orienting Yourself: The Use of Coordinates”** from *Ganita Manjari*. The chapter covers the 2-D Cartesian coordinate system, axes, origin, quadrants, coordinates, distance, midpoint, reflections and coordinate applications.

Name: _____

Class: IX Section: _____

Date: _____



Instructions

- Choose the **one correct answer**.
 - Do not use a calculator.
 - **Total: 30 MCQs**
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PART A – BASIC CONCEPTS

1. A coordinate system is used to:

- A. Measure only angles
 - B. Locate points precisely
 - C. Calculate only areas
 - D. Draw circles only
-

2. In a 2-D Cartesian coordinate system, the horizontal axis is called the:

- A. y-axis
- B. z-axis
- C. x-axis
- D. origin

3. The vertical axis is called the:

- A. x-axis
 - B. y-axis
 - C. origin
 - D. coordinate axis
-

4. The point where the x-axis and y-axis intersect is called:

- A. Quadrant
 - B. Centre
 - C. Origin
 - D. Midpoint
-

5. The coordinates of the origin are:

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

6. The coordinates of a point are generally written in the order:

- A. (y, x)
 - B. (x, y)
 - C. (x + y)
 - D. (xy)
-

7. A point on the x-axis has coordinates of the form:

- A. (0, y)
- B. (x, 0)

- C. (x, x)
 - D. $(0, 0)$
-

8. A point on the y-axis has coordinates of the form:

- A. $(x, 0)$
- B. (y, y)
- C. $(0, y)$
- D. $(0, 0)$

The textbook states that points on the x-axis have the form $(x, 0)$ and points on the y-axis have the form $(0, y)$.

PART B – QUADRANTS

9. A point in Quadrant I has:

- A. $(+, +)$
 - B. $(-, +)$
 - C. $(-, -)$
 - D. $(+, -)$
-

10. A point in Quadrant II has:

- A. $(+, +)$
 - B. $(-, +)$
 - C. $(-, -)$
 - D. $(+, -)$
-

11. A point in Quadrant III has:

- A. $(+, +)$
- B. $(-, +)$

- C. $(-, -)$
 - D. $(+, -)$
-

12. A point in Quadrant IV has:

- A. $(+, +)$
 - B. $(-, +)$
 - C. $(-, -)$
 - D. $(+, -)$
-

13. In which quadrant does the point $(5, -7)$ lie?

- A. I
 - B. II
 - C. III
 - D. IV
-

14. In which quadrant does $(-4, 8)$ lie?

- A. I
 - B. II
 - C. III
 - D. IV
-

15. Which point lies in Quadrant III?

- A. $(4, -6)$
- B. $(-4, 6)$
- C. $(-4, -6)$
- D. $(4, 6)$

The textbook gives the sign patterns as I: $(+, +)$, II: $(-, +)$, III: $(-, -)$, IV: $(+, -)$.

PART C – COORDINATES

16. Point $A(7, 3)$ has x-coordinate:

- A. 3
 - B. 7
 - C. 10
 - D. -7
-

17. Point $B(-5, 4)$ has y-coordinate:

- A. -5
 - B. 5
 - C. 4
 - D. -4
-

18. Which point lies on the x-axis?

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

19. Which point lies on the y-axis?

- A. $(5, 0)$
 - B. $(0, -8)$
 - C. $(4, 3)$
 - D. $(-2, 5)$
-

20. If the x-coordinate is -5 , a point on the vertical line through it can be written as:

- A. $(y, -5)$
 - B. $(-5, y)$
 - C. $(5, y)$
 - D. $(x, -5)$
-

PART D – DISTANCE

21. The distance between $(2, 5)$ and $(8, 5)$ is:

- A. 5 units
 - B. 6 units
 - C. 7 units
 - D. 8 units
-

22. The distance between $(4, -2)$ and $(4, 6)$ is:

- A. 4 units
 - B. 6 units
 - C. 8 units
 - D. 10 units
-

23. The horizontal distance between $(-3, 4)$ and $(5, 4)$ is:

- A. 2 units
 - B. 5 units
 - C. 8 units
 - D. 9 units
-

24. The distance between $(0, 0)$ and $(3, 4)$ is:

- A. 3 units
- B. 4 units
- C. 5 units
- D. 7 units

25. The distance between $(-2, -3)$ and $(1, 1)$ is:

- A. 4 units
- B. 5 units
- C. $\sqrt{13}$ units
- D. 7 units

The chapter uses the Baudhāyana–Pythagoras theorem to obtain the general distance formula between two points.

PART E – MIDPOINT & REFLECTION

26. The midpoint of $(2, 4)$ and $(6, 8)$ is:

- A. $(4, 6)$
 - B. $(8, 12)$
 - C. $(2, 2)$
 - D. $(3, 4)$
-

27. The midpoint of $(-4, 2)$ and $(6, 8)$ is:

- A. $(1, 5)$
 - B. $(2, 5)$
 - C. $(-1, 5)$
 - D. $(1, 10)$
-

28. The reflection of $(5, 3)$ in the x-axis is:

- A. $(-5, 3)$
- B. $(5, -3)$
- C. $(-5, -3)$
- D. $(3, 5)$

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

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

30. Which transformation represents reflection in the y-axis?

- A. $(x, y) \rightarrow (x, -y)$
- B. $(x, y) \rightarrow (-x, y)$
- C. $(x, y) \rightarrow (y, x)$
- D. $(x, y) \rightarrow (-x, -y)$

The chapter summary gives the reflection rules: in the y-axis, $(x, y) \rightarrow (-x, y)$; in the x-axis, $(x, y) \rightarrow (x, -y)$.

BONUS – HIGHER-ORDER MCQs

31. If $P(x, y)$ lies in Quadrant II, which condition must be true?

- A. $x > 0, y > 0$
 - B. $x < 0, y > 0$
 - C. $x < 0, y < 0$
 - D. $x > 0, y < 0$
-

32. If $(x, y) = (y, x)$, then:

- A. $x = 0$
- B. $y = 0$
- C. $x = y$
- D. $x = -y$

33. Which pair represents reflection in the x-axis?

- A. $(3, 5)$ and $(-3, 5)$
 - B. $(3, 5)$ and $(3, -5)$
 - C. $(3, 5)$ and $(-3, -5)$
 - D. $(3, 5)$ and $(5, 3)$
-

34. A point is 6 units to the right of the y-axis and 4 units below the x-axis. Its coordinates are:

- A. $(-6, 4)$
 - B. $(6, 4)$
 - C. $(-6, -4)$
 - D. $(6, -4)$
-

35. The points $(-3, -4)$ and $(6, 8)$ are from the origin at distances:

- A. 5 and 10 units
 - B. 7 and 14 units
 - C. 5 and 10 units
 - D. 1 and 2 units
-

ANSWER KEY

Q	Ans	Q	Ans	Q	Ans
1	B	13	D	25	C
2	C	14	B	26	A
3	B	15	C	27	A
4	C	16	B	28	B

5	D	17	C	29	A
6	B	18	C	30	B
7	B	19	B	31	B
8	C	20	B	32	C
9	A	21	B	33	B
10	B	22	C	34	D
11	C	23	C	35	A/C*
12	D	24	C		

⚠ Correction for Q35

Both points are at distances:

$$\sqrt{(-3)^2 + (-4)^2} = 5$$

and

$$\sqrt{6^2 + 8^2} = 10$$

So the correct answer is **5 and 10 units**. Options **A** and **C** were accidentally duplicated. For your website worksheet, **remove option C** and keep:

- A. 5 and 10 units
- B. 7 and 14 units
- C. 4 and 8 units
- D. 1 and 2 units

📌 **Final Answer: A**



CHAPTER 1 QUICK REVISION

📍 **Origin:** $(0, 0)$

➡ **x-axis:** $(x, 0)$

⬆ **y-axis:** $(0, y)$

 **Quadrant I:** $(+, +)$

 **Quadrant II:** $(-, +)$

 **Quadrant III:** $(-, -)$

 **Quadrant IV:** $(+, -)$

 **Horizontal distance:** $|x_2 - x_1|$

 **Vertical distance:** $|y_2 - y_1|$

 **Distance between two points:**

$$\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

 **Midpoint:**

$$\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

 **Reflection in x-axis:**

$$(x, y) \rightarrow (x, -y)$$

 **Reflection in y-axis:**

$$(x, y) \rightarrow (-x, y)$$

These are the key Chapter 1 relationships given in the textbook/study material.