



CLASS 9 MATHEMATICS



CHAPTER 1 – THE USE OF COORDINATES



FREE WORKSHEET | Ganita Manjari | 2026–27

Name: _____

Class: IX **Section:** _____

Date: _____



Instructions

- Read each question carefully.
 - Show all necessary working.
 - Use graph paper wherever required.
 - Write coordinates in the form **(x, y)**.
 - **Total Marks: 30**
-



SECTION A – MCQs

1 × 6 = 6 marks

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

- A. Quadrant
 - B. Origin
 - C. Coordinate
 - D. Scale
-

2. Which is the correct way to write the coordinates of a point?

- A. (y, x)
- B. [x, y]
- C. (x, y)
- D. x, y

3. What are the coordinates of a point lying on the x-axis?

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

4. The point $(-4, 3)$ lies in:

- A. First quadrant
 - B. Second quadrant
 - C. Third quadrant
 - D. Fourth quadrant
-

5. Which point lies in the fourth quadrant?

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

6. The distance between $(2, 0)$ and $(7, 0)$ is:

- A. 3 units
 - B. 5 units
 - C. 7 units
 - D. 9 units
-

SECTION B – FILL IN THE BLANKS

1 × 5 = 5 marks

7. The horizontal axis in the Cartesian plane is called the _____.

8. The vertical axis is called the _____.
9. The coordinates of the origin are _____.
10. The first coordinate of a point is called its _____ coordinate.
11. The second coordinate of a point is called its _____ coordinate.
-

SECTION C – IDENTIFY THE QUADRANT

1 × 4 = 4 marks

Write the quadrant in which each point lies.

12. A(5, 7) → _____

13. B(-6, 4) → _____

14. C(-3, -8) → _____

15. D(7, -2) → _____

SECTION D – COORDINATES

2 × 4 = 8 marks

16. Write the coordinates of each point described below.

a) A point 5 units to the right of the origin on the x-axis.

Answer: _____

b) A point 4 units above the origin on the y-axis.

Answer: _____

17. A point has x-coordinate -6 and y-coordinate 3 .

a) Write its coordinates.

b) In which quadrant does it lie?

Answer: _____

18. Consider the points:

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

a) Which points have the same y-coordinate?

b) Which points have the same x-coordinate?

19. A point P is located 7 units to the left of the y-axis and 4 units below the x-axis.

a) Write the coordinates of P .

b) State its quadrant.

SECTION E – DISTANCE BETWEEN POINTS

$2 \times 2 = 4$ marks

20. Find the distance between:

$A(3, 0)$ and $B(9, 0)$.

21. Find the distance between:

$P(0, -2)$ and $Q(0, 6)$.



SECTION F – REFLECTION

1 × 3 = 3 marks

22. Write the coordinates of the reflection of each point.

a) A(4, 3) in the **y-axis**.

Answer: _____

b) B(-5, 2) in the **x-axis**.

Answer: _____

c) C(-3, -4) in the **origin**.

Answer: _____



SECTION G – COMPETENCY-BASED QUESTION

4 marks

23. 🏠 A Room on a Coordinate Grid

A room is represented on a coordinate grid. Its four corners are:

A(1, 1)

B(8, 1)

C(8, 5)

D(1, 5)

Answer the following:

a)

Which points lie on the same horizontal line?

b)

Which points lie on the same vertical line?

c)

Find the length of AB .

d)

Find the length of BC .



BONUS CHALLENGE

★ Coordinate Detective

24. A point P is reflected first in the x-axis and then in the y-axis.

Its original coordinates are:

$P(4, -6)$

Find its final coordinates.

Working:

Final answer: _____

ANSWER KEY

Section A

1. B – Origin
 2. C – (x, y)
 3. B – (x, 0)
 4. B – Second quadrant
 5. D – (3, -5)
 6. B – 5 units
-

Section B

7. x-axis
 8. y-axis
 9. (0, 0)
 10. x-coordinate
 11. y-coordinate
-

Section C

12. A(5, 7) → First quadrant
 13. B(-6, 4) → Second quadrant
 14. C(-3, -8) → Third quadrant
 15. D(7, -2) → Fourth quadrant
-

Section D

16.

a) (5, 0)

b) (0, 4)

17.

a) $(-6, 3)$

b) **Second quadrant**

18.

a) Same y-coordinate: **A and B; C and D**

b) Same x-coordinate: **A and D; B and C**

19.

a) $P(-7, -4)$

b) **Third quadrant**

Section E

20.

Distance:

$$= 9 - 3$$

$$= 6 \text{ units}$$

21.

Distance:

$$= 6 - (-2)$$

$$= 8$$

$$= 8 \text{ units}$$

Section F

22.

a) Reflection of $(4, 3)$ in y-axis:

$(-4, 3)$

b) Reflection of $(-5, 2)$ in x-axis:

$(-5, -2)$

c) Reflection of $(-3, -4)$ in origin:

$(3, 4)$

Section G

23.

a) Same horizontal line:

A and B

D and C

b) Same vertical line:

A and D

B and C

c)

$$AB = 8 - 1$$

$$= 7 \text{ units}$$

d)

$$BC = 5 - 1$$

$$= 4 \text{ units}$$



BONUS

24.

Original:

$$P(4, -6)$$

Reflection in x-axis:

$$(4, 6)$$

Reflection in y-axis:

$$(-4, 6)$$



QUICK REVISION BOX



Coordinate of a point

$$(x, y)$$



x-coordinate

Horizontal position

↕ **y-coordinate**

Vertical position



Origin

$$(0, 0)$$

➡ On x-axis

$(x, 0)$

↕ On y-axis

$(0, y)$

↔ Reflection in x-axis

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

↔ Reflection in y-axis

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

↔ Reflection in origin

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

★ STUDENT SELF-CHECK

After completing the worksheet:

- ☐ I can read coordinates correctly.
- ☐ I can plot points on a coordinate plane.
- ☐ I can identify quadrants.
- ☐ I can find points on the axes.
- ☐ I can calculate horizontal and vertical distances.
- ☐ I can reflect points in the x-axis.
- ☐ I can reflect points in the y-axis.
- ☐ I can reflect points in the origin.

🏆 My Score: _____ / 30

25–30: 🌟 Excellent!

20–24: 👏 Very Good!

15–19: 👍 Good – keep practising!

Below 15: 📖 Revise the chapter and try again!