CBSE Test Paper 04 CH-3 Coordinate Geometry

- 1. The perpendicular distance of the point P(-2, -3) from the y-axis is
 - a. 3 units
 - b. -2
 - c. 2 units
 - d. -3
- 2. Points (2, -3), (4, -5), (5, -9) and (-2, -5)
 - a. lie in the IV quadrant
 - b. lie on the axes
 - c. lie in the I quadrant
 - d. does not lie in sam<mark>e quadrant</mark>
- 3. The radius of a circle whose radius is 5 units and whose centre lies on the origin. The co-ordinates of any point lies on the circle and on the y-axis are
 - a. (0, 5) only
 - b. (0, 5) or (0, -5)
 - c. (5,0) only
 - d. (5, 0) or (-5, 0)
- 4. The point (-3, 0) lies
 - a. in quadrant III
 - b. in quadrant IV
 - c. on the negative direction of y-axis
 - d. on the negative direction of x-axis
- 5. Which point does not lie in any quadrant?
 - a. (3, -4)
 - b. (5, 9)
 - c. (-3, 6)
 - d. (0, 3)
- 6. Fill in the blanks:

The ordinate of a point is 3 and abscissa is 5, then the point is_____.

7. Fill in the blanks:

If the coordinates of the two points are P(-2, 3) and Q(-3, 5), then (Abscissa of P) - (Abscissa of Q) is_____.

- 8. Without plotting the points indicate the quadrant in which they will lie, if ordinate is 5 and abscissa is -3.
- 9. Find the coordinates of the point: whose abscissa is 5 and which lies on x-axis.
- 10. Draw the quadrilateral whose vertices are (1, 1), (2, 4), (8, 4) and (10, 1).
- 11. Draw the graph of the equation: 3x 2 = 0.
- 12. Name the quadrant in which the following points lie :(i) (2, 3)(ii) (-3, 4)(iii) (-3, -10)
- 13. Plot the points (x, y) given in the following table on the plane, choosing suitable units of distance on the axes.

Х	-2	-1	0	1	3
Y	8	7	-1.25	3	-1

- 14. Draw the graph of 2x + y = 6. Read two solutions from the graph and verify the same by actual substitution. Also, find the points where the line meets the axes.
- 15. Write the coordinates of the vertices of a rectangle whose length and breadth are 5 and 3 units respectively, one vertex at the origin, the longer side lies on the x-axis and one of the vertices lies in the III quadrant.

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Solution

1. (c) 2 units

Explanation: Perpendicular distance of any point from y-axis is the given x-coordinate of point,

So distance=2unit

2. (d) does not lie in same quadrant

Explanation: Point (2,—3),(4,—5),(5,—9) lies in 4th quadrant, because sign of abscissa and ordinate in 4th quadrant is (+,—),

But point (-2, -5) lies in 3rd quadrant since, sign of abscissa and ordinate in 3rd quadrant is (-, -)

3. (b) (0, 5) or (0, -5)

Explanation: Since point lies on y-axis so it can lie in two point one in positive direction and another is negative direction of y-axis

So point will be (0,5)or (0,-5)

4. (d) on the negative dir<mark>ectio</mark>n of x-axis

Explanation: Since value of y-ordinate is zero ,so point lies on x-axis ,

But value of x is -ve so ,it lies on negative direction of x-axis

5. (d) (0, 3)

Explanation: Since here value of x-coordinate=0 so point lies on y-axis not in any quadrant

- 6. (5, 3)
- 7.1
- 8. In the point (-3, 5) abscissa is negative and ordinate is positive, so it lies in the second quadrant.
- 9. The coordinate of the point whose abscissa is 5 and which lies on x-axis are (5, 0).



11. Given equation is 3x - 2 = 0, 3x = 2So $x = \frac{2}{3}$.

The graph of x = $\frac{2}{3}$ is a straight line parallel to y-axis (vertical line) at a distance of $\frac{2}{3}$ units to the right of the y-axis.



- 12. (i) I quadrant
 - (ii) II quadrant
 - (iii) III quadrant
- 13. We need to plot the given below points on the graph by using a suitable scale.



14. 2x + y = 6

 \Rightarrow y = -2x + 6

Let x = 0 : y = -2(0) + 6 = 0 + 6 = 6

Let x = 1 : y = -2(1) + 6 = -2 + 6 = 4

Let x = -1 : y = -2(-1) + 6 = 6 + 2 = 8

Thus we have the following table :

x	0	1	-1
У	6	4	8

Now, plot the points A(0, 6), B(1, 4) and C(-1, 8) on a graph paper. Join AB and extend it in both the directions.

Then, the line AB is the required graph. We find from the graph that x = 2, y = 2 and x = 3, y = 0 are also the solutions.

Verification : C(2, 2) substitute x = 2, y = 2 in (i), we have

L.H.S. = y = 2 and R.H.S. = $6 - 2x = 6 - 2 \times 2 = 6 - 4 = 2$

For D(3, 0) substitute x = 3, y = 0 in (i), we have

L.H.S. = y = 0 and R.H.S. = 6 - 2x = 6 - 2 \times 3 = 6 - 6 = 0

So, L.H.S. = R.H.S. in both the cases.

The line meets the x-axis at (3, 0) and y-axis at (0, 6).





As the length and breadth of the rectangle are 5 and 3 units respectively, one vertex at the origin, the longer side lies on the x-axis and one of the vertices lies in the III quadrant, so the coordinate of the vertices of rectangle OABC are O(0, 0), A (-5, 0), B (-5, -3) and C (0, -3).