

*Committed to Excellence in Education***Chapter 3- Coordinate Geometry (Assignment 1 – Level 1)**

Category – Assignment

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1. Find the coordinates of following points:
 - (a) Whose ordinate is -5 and which lies on Y-axis
 - (b) Which lies on both Y-axis and X-axis
 - (c) Whose abscissa is 3 and which lies on X-axis
2. Plot the point P(2,-6) on graph paper and from it draw PM perpendicular to X-axis and PN perpendicular to Y axis. Write the co-ordinates of points M and N.
3. A(5,3), B(-2,3) and D(5,-4) are the three vertices of a square ABCD. Plot these points on a graph paper and hence find the co-ordinates of point C. Also, find the area of ABCD.
4. In which quadrant or on which axis do the following points lie?
(-4,0); (1,-3); (0,-2); (-2,4); (-7,-8).
5. State whether the following statements are true or false:
 - (a) The origin is in the first quadrant.
 - (b) The ordinate of a point is its x-coordinate.
 - (c) If the ordinate of a point is equal to its abscissa, the point lies either in the first or second quadrant.
 - (d) The point (a, b) lies on Y-axis if $b = 0$.
6. The coordinate of two points A and B are (3,-2) and (3,4) respectively. What are the co-ordinates of the point at which the line segment AB cuts X-axis?
7. A point lies on the y-axis at a distance of 7 units from X-axis. Find its coordinates.
8. Plot the following points on a graph sheet and join them in order: B(-5,3); E(-5,-3); S(4,-3) and T(4,3). Name the figure so obtained and hence, find its area.
9. A(3,6) and C(8,2) are the opposite vertices of a rectangle. Plot these points on graph paper and find the coordinates of vertices B and D.
10. Plot the points A(3,1); B(6,4); C(1,-1) and check whether the points are collinear or not.
11. Write the co-ordinates of points which are mirror images of point (-4,5) in X-axis and Y-axis.
12. Three vertices of a parallelogram are A(-2,2); B(6,2) and C(4,-3). Plot these points on a

graph paper and find the co-ordinate of fourth vertex D.

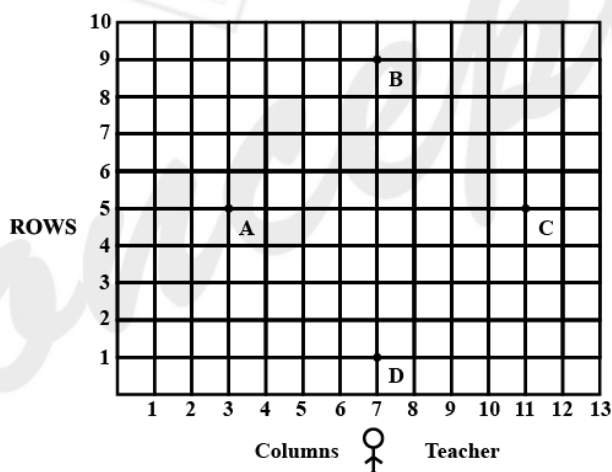
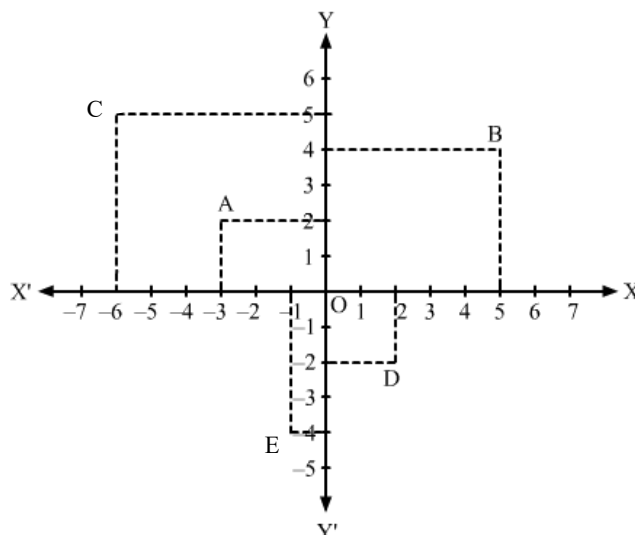
13. Plot $A(-2,3)$; $B(5,3)$, $C(7,0)$; $D(-4,0)$ are joined in order. Identify the figure formed and also find its area.

14. Write the signs convention of the coordinates of a point in the second quadrant.

15. If in coordinates of a point $B(3, -2)$, signs of both coordinates are interchanged, then it will lie in which quadrant ?

16. Write down the coordinates of each of the points A, B, C, D, E shown above.

17. Students of a school are standing in rows and columns in their playground for Yoga practice. A, B, C and D are the positions of four students as shown in the figure. Student E joins them and sits at a point equidistant from A, B, C and D.



- [a] What are the coordinates of A?
- [b] What is the distance between B and D?
- [c] What is the distance of C from Y-axis?
- [d] If the origin is shifted to $(7,5)$, what will be the coordinate of C?
- [e] What is the position of E?
18. Three vertices of a rectangle $ABCD$ are $A(3, 1)$, $B(-3, 1)$ and $C(-3, 3)$. Plot these points on a graph paper and find the coordinates of the fourth vertex D . Also, find the area of rectangle $ABCD$.
