

Advanced_Grade-9_Coordinate Geometry

Identifying and Plotting Points

1. Plot two points A(- 3, 3) and B(3, - 3) on the graph paper. Draw line segment AB and find its mid point.
2. Plot the points P(-1, 0), Q(0, 1) and R(2, 3) on the graph paper and check whether they are collinear or not.
3. In the co-ordinate plane, draw a square of side 3 units, taking origin as one vertex. Also, write the co-ordinates of its vertices.
4. Plot the points A(3, 10), B(-3, 5) and C(-1, -6) on the graph paper. Join them in pairs and identify the figure so formed.
5. Point A(4, 2), B(- 1, 2) and D(4, - 5) are three vertices of a rectangle ABCD. Plot these points and hence find the vertex C.
6. Plot the points (x, y) given in the following table on the cartesian plane, choosing suitable units of distance on the axes.

<i>x</i>	- 1.25	0	3	- 1.75	4	- 2.25
<i>y</i>	2	2.25	1.5	- 2	- 3	0

7. Plot the points A(1, -1) and B(4, 5).
 - (i) Draw a line segment joining these points. Write the co-ordinate of a point on this line segment between the points A and B.
 - (ii) Extend this line segment and write the co-ordinates of a point on this line which lies outside the line segment AB.

8. In the given figure, $\triangle ABC$ and $\triangle ADC$ are equilateral triangles on common base AC , each side of triangles being $2a$ units. Vertices A and C lie on X -axis, vertices B and D lie on Y -axis. O is the mid-point of AC and BD . Find the co-ordinates of the point B .

