

Mathematics



COORDINATE GEOMETRY

ASSESS YOURSELF

- Is $P(3, 2)$ and $Q(2, 3)$ represents the same point? Justify.
- If $a < 0$ and $b < 0$, then in which quadrant the point $A(a, b)$ lies?
- Write the perpendicular distance of the point $P(4, 3)$ from the y -axis.
- Write the signs of respective x -coordinate and y -coordinate of a point lying in the IVth quadrant.
- Define quadrant.
- Write the coordinates of a point
 - above the x -axis lying on the y -axis at a distance of 3 units.
 - below the x -axis and on the y -axis at a distance of 8 units.
 - right of origin and on the x -axis at a distance of 2 units.

- Draw the line XOX' and YOY' as the axes on the plane of a paper and plot the following points: $A(5, 3)$, $B(-3, 2)$, $C(-5, -5)$ and $D(3, -6)$.

- Plot the point $P(2, -3)$ on the graph paper and from it, draw PM and PN perpendicular to the x -axis and the y -axis respectively. Write the coordinates of points M and N .

- Find the value of x and y , if
 - $(x + 3, 5) = (5, y)$
 - $(2, 2y - 3) = (x, 7)$

- Find the area of the triangle whose vertices are $(0, 4)$, $(0, 0)$ and $(2, 0)$ by plotting them on graph.

- Plot the points (x, y) given in the following table on the plane.

| x | y |
|-----|-----|
| -1 | 3 |
| 1 | -3 |
| 0 | -5 |
| 4 | -4 |
| -2 | -5 |

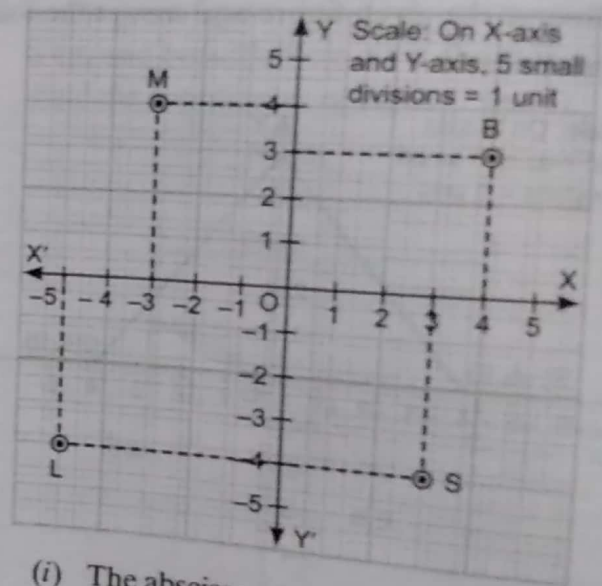
- Taking 0.5 cm as 1 unit, plot the following points on the graph paper:

$A(1, 3)$, $B(-3, -1)$, $C(1, -4)$, $D(-2, 3)$, $E(0, 8)$ and $F(1, 0)$.

- What will be the position of point $P(3, 2)$, if
 - ordinate is multiplied by (-1)
 - abscissa is multiplied by (-2)
 - abscissa and ordinate both are added to (-5) .

- Plot the points $E(4, 2)$, $L(-1, 3)$, $I(0, 2)$ and $N(2, 0)$ on the Cartesian plane. Join these points in order. Name the shape thus obtained. What would you say about point L , I and N ?

- See the given figure and complete the following statements:



- The abscissa and the ordinate of the point B are _____ and _____, respectively. Hence, the coordinates of B are (____, ____).
- The x -coordinate and the y -coordinate of the point M are _____ and _____, respectively. Hence, the coordinates of M are (____, ____).
- The x -coordinate and the y -coordinate of the point L are _____ and _____, respectively. Hence, the coordinates of L are (____, ____).
- The x -coordinate and the y -coordinate of the point S are _____ and _____, respectively. Hence, the coordinates of S are (____, ____).