

Co-ordinate Geometry and Linear equations in two variables

MCQ :

- (1) A point $P(x, y)$ lies in the IInd quadrant. If the signs of x and y are interchanged, then it lies in —
 (a) Ist quadrant (b) IInd quadrant (c) IIIrd quadrant
 (d) IVth quadrant
- (2) The point whose abscissa is -5 and lies on x -axis is —
 (a) $(5, 0)$ (b) $(0, -5)$ (c) $(0, 5)$ (d) $(-5, 0)$
- (3) The distance of the point $(0, -3)$ from origin is —
 (a) 0 units (b) -3 units (c) 3 units (d) can't be determined
- (4) Co-ordinates of the points $P(-5, 6)$ and $Q(4, 9)$. Then find $(2 \times \text{Abscissa of } P + \text{Ordinate of } Q) \rightarrow$
 (a) 8 (b) -1 (c) 12 (d) 10
- (5) The distance of the point $(4, 3)$ from origin is —
 (a) 4 units (b) 3 units (c) 5 units (d) 7 units

<6> The mirror image of the point $(-2, 3)$ with respect to X -axis is —
(a) $(2, 3)$ (b) $(2, -3)$ (c) $(-2, 3)$ (d) None of these.

<7> If $(2k-1, k)$ is a solution of the eqn. $10x - 9y = 12$, then $k =$ —
(a) 1 (b) 2 (c) 3 (d) 4

<8> The graph of linear equation $2x - y = 4$ cuts x -axis at $\rightarrow$
(a) $(2, 0)$ (b) $(-2, 0)$ (c) $(0, -4)$ (d) $(0, 4)$

<9> Which of the following represents a line parallel to x -axis —
(a) $y = 6$ (b) $x = 5$ (c) $2y - x = 6$ (d) $x - 3y = 9$

<10> How many linear equations in x & y satisfied by $x = 1$ and $y = 2$?
(a) Only one (b) Two (c) Three (d) Infinitely many

Answer the following: (Coordinate Geometry)

VSAQ

- ① Find the distance of the points from x -axis and y -axis respectively —
 $(-4, 5)$, $(7, 8)$
- ② What will be the area of the triangle formed by $(0, 0)$, $(6, 0)$ and $(0, -5)$.
- ③ A point lies on x -axis at a distance of $\pm$ units from y -axis. What are its coordinates? What will be its co-ordinates if it lies on y -axis at a distance of -7 units from x -axis?

SAQ

- ① Plot the points $P(1, 0)$, $Q(4, 0)$ and $S(1, 3)$ on a graph paper and find the coordinates of the point R such that $PQRS$ is a square.
- ② Points $A(5, 3)$, $B(-2, 3)$ and $D(-5, 4)$ are three vertices of a square $ABCD$. Plot these points on a graph paper and hence find the co-ordinates of vertex C .
- ③ Write the co-ordinates of the vertices of a rectangle whose length and breadth are 5 and 3 units respectively, one vertex at origin, the longer side lies on x -axis and one of the vertices lies in IIIrd quadrant.