

1. Find four different solutions of the equation $x+2y=6$.
2. Find two solutions for each of the following equations:
 - (i) $4x + 3y = 12$
 - (ii) $2x + 5y = 0$
 - (iii) $3y + 4=0$
3. Write four solutions for each of the following equations:
 - (i) $2x + y = 7$
 - (ii) $\pi x + y = 9$
 - (iii) $x = 4y$.
4. Given the point (1, 2), find the equation of the line on which it lies. How many such equations are there?
5. Draw the graph of the equation
 - (i) $x + y = 7$
 - (ii) $2y + 3 = 9$
 - (iii) $y - x = 2$
 - (iv) $3x - 2y = 4$
 - (v) $x + y - 3 = 0$
6. Draw the graph of each of the following linear equations in two variables:
 - (i) $x + y = 4$
 - (ii) $x - y = 2$
 - (iii) $y = 3x$
 - (iv) $3 = 2x + y$
 - (v) $x - 2 = 0$
 - (vi) $x + 5 = 0$
 - (vii) $2x + 4 = 3x + 1$.
7. If the point (3, 4) lies on the graph of the equation $3y=ax+7$, find the value of 'a'.
8. Solve the equations $2x + 1 = x - 3$, and represent the solution(s) on
 - (i) the number line,
 - (ii) the Cartesian plane.
9. Draw a graph of the line $x - 2y = 3$. From the graph, find the coordinates of the point when
 - (i) $x = - 5$
 - (ii) $y = 0$.
10. Draw the graph of $y = x$ and $y = - x$ in the same graph. Also, find the coordinates of the point where the two lines intersect.

Write the correct answer in each of the following :

1. Point $(-3, 5)$ lies in the

- (A) first quadrant (B) second quadrant
(C) third quadrant (D) fourth quadrant

2. Signs of the abscissa and ordinate of a point in the second quadrant are respectively

- (A) $+, +$ (B) $-, -$ (C) $-, +$ (D) $+, -$

3. Point $(0, -7)$ lies

- (A) on the x-axis (B) in the second quadrant
(C) on the y-axis (D) in the fourth quadrant

4. Point $(-10, 0)$ lies

- (A) on the negative direction of the x-axis
(B) on the negative direction of the y-axis
(C) in the third quadrant
(D) in the fourth quadrant

5. Abscissa of all the points on the x-axis is

- (A) 0 (B) 1 (C) 2 (D) any number

6. Ordinate of all points on the x-axis is

- (A) 0 (B) 1 (C) -1 (D) any number

7. The point at which the two coordinate axes meet is called the

- (A) abscissa (B) ordinate (C) origin (D) quadrant

8. A point both of whose coordinates are negative will lie in

- (A) I quadrant (B) II quadrant

(C) III quadrant (D) IV quadrant

9. Points $(1, -1)$, $(2, -2)$, $(4, -5)$, $(-3, -4)$

(A) lie in II quadrant (B) lie in III quadrant

(C) lie in IV quadrant (D) do not lie in the same quadrant

10. If y coordinate of a point is zero, then this point always lies

(A) in I quadrant (B) in II quadrant

(C) on x - axis (D) on y - axis

11. The points $(-5, 2)$ and $(2, -5)$ lie in the

(A) same quadrant (B) II and III quadrants, respectively

(C) II and IV quadrants, respectively (D) IV and II quadrants, respectively

12. If the perpendicular distance of a point P from the x -axis is 5 units and the foot of the perpendicular lies on the negative direction of x -axis, then the point P has

(A) x coordinate = -5 (B) y coordinate = 5 only

(C) y coordinate = -5 only (D) y coordinate = 5 or -5

13. On plotting the points $O(0, 0)$, $A(3, 0)$, $B(3, 4)$, $C(0, 4)$ and joining OA , AB , BC and CO which of the following figure is obtained?

(A) Square (B) Rectangle (C) Trapezium (D) Rhombus

14. If $P(-1, 1)$, $Q(3, -4)$, $R(1, -1)$, $S(-2, -3)$ and $T(-4, 4)$ are plotted on the graph paper, then the point(s) in the fourth quadrant are

(A) P and T (B) Q and R (C) Only S (D) P and R

15. If the coordinates of the two points are $P(-2, 3)$ and $Q(-3, 5)$, then (abscissa of P) $-$ (abscissa of Q) is

(A) -5 (B) 1 (C) -1 (D) -2

16. If P (5, 1), Q (8, 0), R (0, 4), S (0, 5) and O (0, 0) are plotted on the graph paper,

then the point(s) on the x-axis are

(A) P and R (B) R and S (C) Only Q (D) Q and O

17. Abscissa of a point is positive in

(A) I and II quadrants (B) I and IV quadrants

(C) I quadrant only (D) II quadrant only

Answers

1. (B) 2. (C) 3. (C) 4. (A) 5. (D) 6. (A) 7. (C) 8. (C) 9. (D) 10. (C) 11. (C) 12. (D) 13. (B) 14. (B) 15. (B) 16. (D) 17. (B)

2 MARKS QUESTIONS

1. 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 coordinates of the vertex C.

2. 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 third quadrant.

3. Plot the points P (1, 0), Q (4, 0) and S (1, 3). Find the coordinates of the point R such that PQRS is a square.

4. Plot the points A (1, −1) and B (4, 5)

(i) Draw a line segment joining these points. Write the

coordinates of a point on this line segment between the points A and B.

(ii) Extend this line segment and write the coordinates of a point on this line which lies outside the line segment AB.

ANSWERS

1. C(−2, −4) 2. (0, 0), (−5, 0), (0, −3) 3. (4, 3) 4. (i) (2, 1), (ii) (5, 7)