

Linear Equations in Two Variables

CM23M090401

Multiple Choice Questions:

1 mark each

- On putting $x = 4$, $y = -5$ in the equation $3x - 2y - 2k = 0$, the value of k is :
 (a) 5 (b) 2 (c) 11 (d) -11
- For the equation $x - 2y = 4$, check which of the following is a solution.
 (a) (0, 2) (b) (2, 0) (c) (4, 0) (d) (1, 1)
- The solution of the equation $2x + 5y = -3$ is :
 (a) (1, 2) (b) (1, -1) (c) (2, 5) (d) (5, -3)
- $x = 5$, $y = 2$ is a solution of the linear equation :
 (a) $x + 2y = 7$ (b) $5x + 2y = 7$ (c) $x + y = 7$ (d) $5x + y = 7$
- Any point on the y-axis is of the form :
 (a) (x, 0) (b) (x, y) (c) (0, y) (d) (y, y)
- The graph of the equation $x + a = 0$ is a line parallel to y-axis and to the left of the y-axis if :
 (a) $a < 0$ (b) $a = 0$ (c) $a > 0$ (d) for any real value of a
- The equation whose graph passes through the origin is :
 (a) $x + y = 5$ (b) $x - y = 5$ (c) $x = \frac{1}{5}y$ (d) none of these
- Graph of linear equation $4x = 5$ in a plane is :
 (a) parallel to x-axis (b) parallel to y-axis (c) lies along x-axis (d) passes through origin
- The graph of the linear equation $2x + 3y = 6$ cuts the y-axis at the point :
 (a) (2, 0) (b) (0, 3) (c) (3, 0) (d) (0, 2)
- The linear equation $2x + 5y = 8$ has :
 (a) two solutions (b) a unique solution (c) no solution (d) infinitely many solutions

Very Short Answer Type Questions :

2 marks each

11. Write whether the following statement is true or false :

The coordinates of points given in the table represent some of the solutions of the equation $2x + 2 = y$

x	0	1	2	3	4
y	2	4	6	8	10

- Draw the graph of : (i) $x = 4$ (ii) $y = -3$
- Draw the graph of the linear equation in two variables : $2x + y = 3$.
- Find the value of k so that $x = -1$ and $y = -1$ is a solution of the linear equation $kx + 12ky = 63$.
- Give two solutions of the equation $x + 3y = 8$.

Short Answer Type Questions :

3 marks each

- Find the points where the graph of the equation $3x + 4y = 12$ cuts the x-axis and the y-axis.
- Find three solutions of $5x - y + 6 = 0$ after reducing it to $y = mx + c$ form.

18. Draw the graph $x + 2y = 6$ and find the points where the line cuts x-axis and y-axis.
19. Draw the graph of the equation $y = -x + 1$ and find the point where the graph meets the axes.
20. Give geometric representation of $2y + 7 = 0$ as an equation : (i) in one variable (ii) in two variables.
21. Find the value of a for which the equation $2x + ay = 5$ has $(1, -1)$ as a solution. Find two more solutions for the equation obtained.

Long Answer Type Questions :

4 marks each

22. Draw the graph of the linear equation $4x + y = 6$. At what points the graph of the equation cuts the x-axis and the y-axis?
23. A number consists of 2 digits. The digit at tens place is 2 times the digit in units place. The number formed by reversing the digit is 27 less than the original number. Find the number.
24. Draw the graph of the linear equation $2x - 3y + 7 = 0$ and hence find the coordinates of the point where the line intersects x-axis.

