

LINEAR EQUATION IN TWO VARIABLES

1. Find the value of k , if $x = 2$, $y = 1$ is a solution of the equation $2x + 3y = k$.
2. Find the points where the graph of the equation $3x + 4y = 12$ cuts the x -axis and the y -axis.
3. At what point does the graph of the linear equation $x + y = 5$ meet a line which is parallel to the y -axis, at a distance 2 units from the origin and in the positive direction of x -axis.
4. Determine the point on the graph of the equation $2x + 5y = 20$ whose x -coordinate is $\frac{5}{2}$ times its ordinate.
5. Draw the graph of the equation represented by the straight line which is parallel to the x -axis and is 4 units above it.
6. Draw the graphs of linear equations $y = x$ and $y = -x$ on the same cartesian plane. What do you observe?
7. Determine the point on the graph of the linear equation $2x + 5y = 19$, whose ordinate is $1\frac{1}{2}$ times its abscissa.
8. Draw the graph of the equation represented by a straight line which is parallel to the x -axis and at a distance 3 units below it.
9. Draw the graph of the linear equation whose solutions are represented by the points having the sum of the coordinates as 10 units.
10. Write the linear equation such that each point on its graph has an ordinate 3 times its abscissa.
11. If the point $(3, 4)$ lies on the graph of $3y = ax + 7$, then find the value of a .
12. How many solution(s) of the equation $2x + 1 = x - 3$ are there on the : (i) Number line (ii) Cartesian plane
13. Find the solution of the linear equation $x + 2y = 8$ which represents a point on (i) x -axis (ii) y -axis
14. For what value of c , the linear equation $2x + cy = 8$ has equal values of x and y for its solution.
15. Let y varies directly as x . If $y = 12$ when $x = 4$, then write a linear equation. What is the value of y when $x = 5$?
16. Draw the graph of the linear equation $2x + 3y = 12$. At what points, the graph of the equation cuts the x -axis and the y -axis?
17. Show that the points A $(1, 2)$, B $(-1, -16)$ and C $(0, -7)$ lie on the graph of the linear equation $y = 9x - 7$.