

CLASS-IX

SUBJECT-MATHS

LINEAR EQUATIONS IN TWO VARIABLES

LAST DATE OF SUBMISSION: 9th May 2017

1. Draw the graph of the equation $3x + 4y = 12$.
 - a) Write the coordinates of the points where this line intersects x-axis and the y-axis.
 - b) Use this graph to find the area of triangle formed by the line and coordinate axes.
2. Draw the graph of the linear equation
$$2x + 3y - 6 = 0$$
 - a) Using graph paper determine whether $x = 3$ and $y = 0$ is a solution
 - b) Find the value of y , if $x = -3$ and
 - c) Find the value of x , if $y = -2$ from the graph and verify.
3. If the point $(2, -2)$ lies on the graph of the linear equation $5x + ky = 4$, find the value of k .
4. Neha and Megha decides to contribute a total of Rs 1000 for the flood victims in Bihar. Neha donates twice the amount donated by Megha.
 - a) Write the linear equation which satisfy the above data and represent it graphically
 - b) Write the values exhibited by them in this initiative?
5. Draw the graph of the linear equation $2(x+1)=3(y-1)-4$ and check whether point $(-3, 1)$ lies on the line ?
6. Draw the graphs of $x+3y=6$ and that of $2x-3y=12$ on the same graph paper and from the graph, obtain a common solution of both the equations.
7. Solve the equation $2x + 1 = x - 3$, and represent the solution (s) on (i) the number line (ii) the Cartesian plane.
8. Draw the graph of the equation $2x + y = 6$. Shaded the region bounded by the graph and the coordinate axes. Also, find the area of the shaded region.
9. A part of monthly expenses of a family on milk is fixed is Rs. 500 and the remaining varies with the quantity of milk, taken extra at the rate of Rs. 20 per kg. taking the quantity of milk required extra as x kg and the total expenditure on milk Rs. y , write linear equation for this information and draw its graph.
10. Half the perimeter of a rectangular garden is 36 m. Write a linear equation which satisfies this data. Draw the graph for the same.
11. If the number of hours for which a labourer works is x and y are his wages (in Rupees) and $y = 2x-1$, draw the graph of work-wages equation. From the graph,

find the wages of the labourer if he works for 6 hours.

12. I am three times as old as my son. Five years later, I shall be two and a half times as old as my son. How old am I and how old is my son ?
13. Ravish tells his daughter Aarushi, "Seven years ago, I was seven times as old as you were then. Also, three years from now, I shall be three times as old as you will be". If present ages of Aarushi and ravish are x and y years respectively, represent this situation algebraically as well as graphically .