

VIDYA BHAWAN BALIKA VIDYA PITH

शक्तिउत्थानआश्रमलखीसरायबिहार

Class-09

Sub-.Maths

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1. Draw the graph of each of the following linear equations in two

variables: (i) $x+y = 4$ Solution:

To draw a graph of linear equations in two variables, let us find out the points to plot.

To find out the points, we have to find the values which x and y can have, satisfying the equation. Here, $x+y = 4$

Substituting the values for x ,

When $x = 0$, $x+y = 4$ $0+y = 4$

$y = 4$

When $x = 4$,

$x+y = 4$ $4+y$

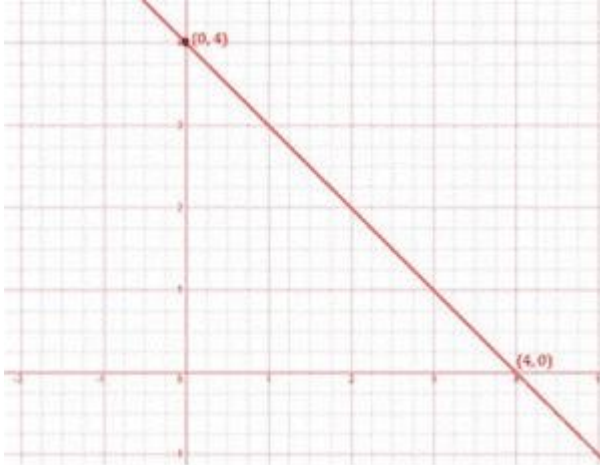
$= 4$ $y = 4-4$

$y = 0$

x	y
0	4

4	0
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The points to be plotted are (0, 4) and (4,0)



(ii) $x - y = 2$

Solution:

To draw a graph of linear equations in two variables, let us find out the points to plot.

To find out the points, we have to find the values which x and y can have, satisfying the equation. Here, $x - y = 2$

Substituting the values for x ,

When $x = 0$, $x - y = 2$ $0 - y = 2$

$y = -2$ When $x = 2$, $x - y = 2$

$2 - y = 2$

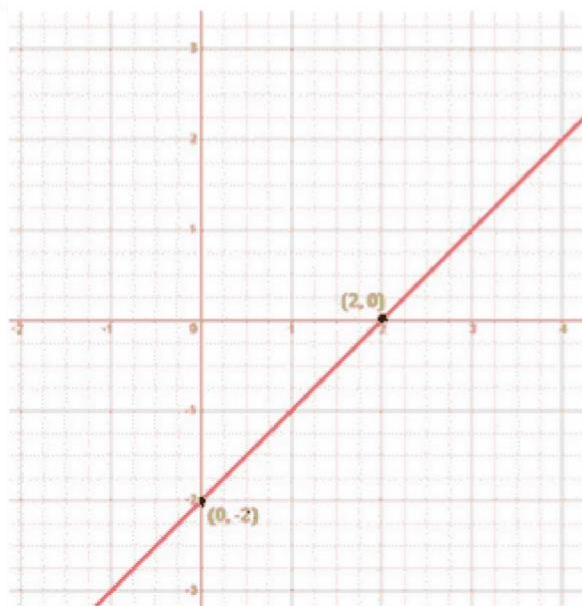
$-y = 2 - 2$

$-y = 0$

$$y = 0$$

x	y
0	-2
2	0

The points to be plotted are $(0, -2)$ and $(2, 0)$



(iii) $y=3x$

Solution:

To draw a graph of linear equations in two variables, let us find out the points to plot.

To find out the points, we have to find the values which x and y can have, satisfying the equation. Here, $y = 3x$

Substituting the values for x ,

When $x = 0$,

$$y = 3x \quad y =$$

$$3 \times 0 \quad y = 0$$

When $x = 1$,

$$y = 3x \quad y =$$

$$3 \times 1$$

$$y = 3$$

x	y
0	0
1	3

The points to be plotted are $(0, 0)$ and $(1, 3)$