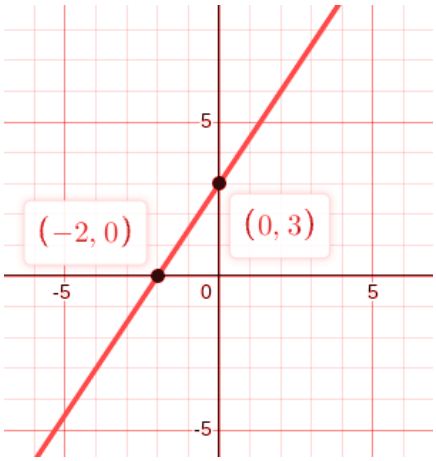
Graphing Linear Equations

Graphing Equations: **y = mx + b**



Steps for graphing an equation using slope and y-intercept:

- Find the y-intercept which is b in y=mx+b equation and is located on the y-axis
- Plot the y-intercept : (x,y) (0,0) Ex: (0,1)
- Find the slope which is m in y=mx+b
- Make a single step using rise over run from the slope Ex: 3/2 is 3 up and 2 right
- Using the slope, find more points, connect the points and make a line

Graph the following linear equation using slope and y-intercept.

$$y = \frac{2}{3}x - 1$$

Steps

1) Find the slope and y-intercept.

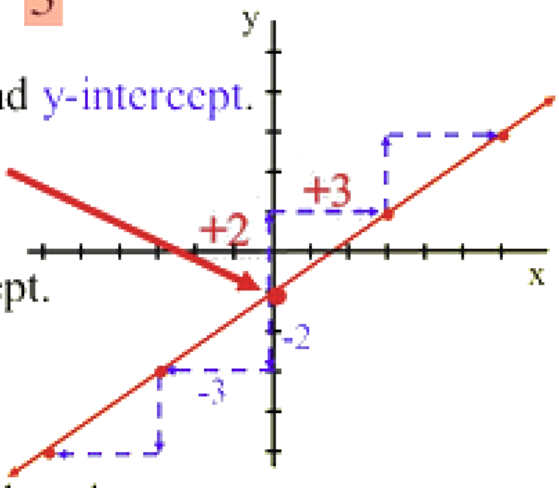
$m = \frac{2}{3}$ $b = -1$

2) Plot the y-intercept.

3) Plot the slope.

$m = \frac{2}{3}$ or $m = \frac{-2}{-3}$

4) Draw line through points.



Y = mx + b ➡ y= 2/3x -1

In this photo you can see our slope and y-intercept
Our slope is 2/3 and y-intercept is -1
We are going to plot the y-intercept first which is (0,-1)
Then we are going to use slope to find points
To find points we need to go 2 up and 3 to the right
From the point (0,-1), go 2 up and 3 to right
Lastly, draw a line to connect the points