Review:

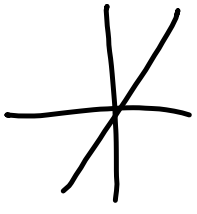
March 2/16

$$y = mx +$$

Slope

y-int

*To Find the equation of a line in the form $y = mx + b$:



Step 1: Find the slope

Step 2: Find the y-intercept

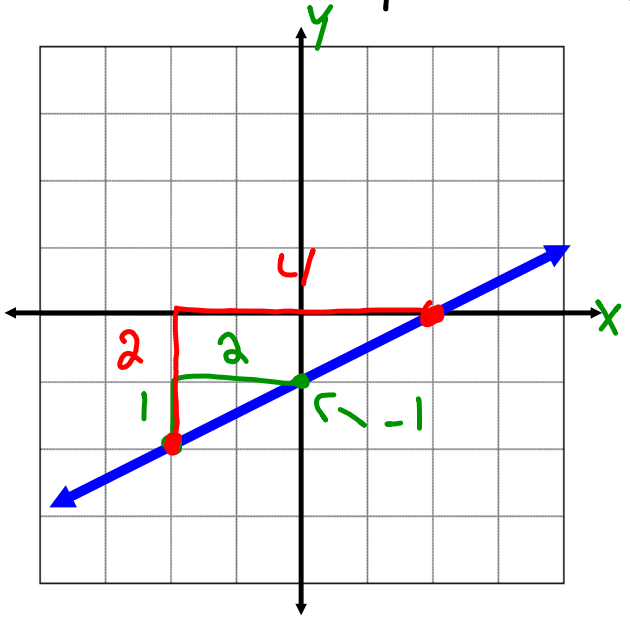
Step 3: Plug the slope and y-intercept into the equation

ie. If the slope is $\frac{-3}{7}$ and the y-intercept is -5, write the equation of the line.

$y = \frac{-3}{7}x + (-5)$ $y = \frac{-3}{7}x - 5$

Finding Equations of Lines

Ex. 1. Find the equations of the lines:



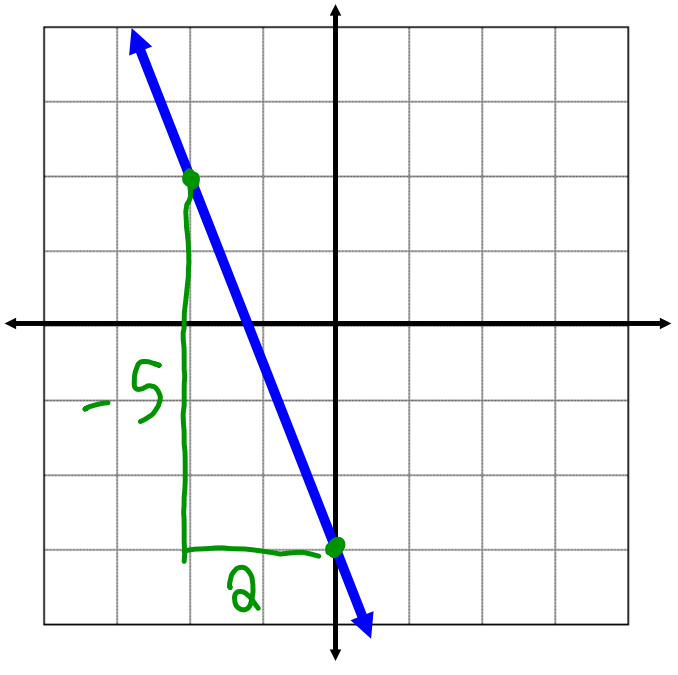
$m = \frac{1}{2}$ $b = -1$

$y = mx + b$

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

$m = \frac{2}{4}$

$= \frac{1}{2}$

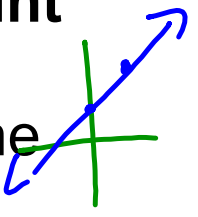


$m = -\frac{5}{2}$ $b = -3$

$y = -\frac{5}{2}x - 3$

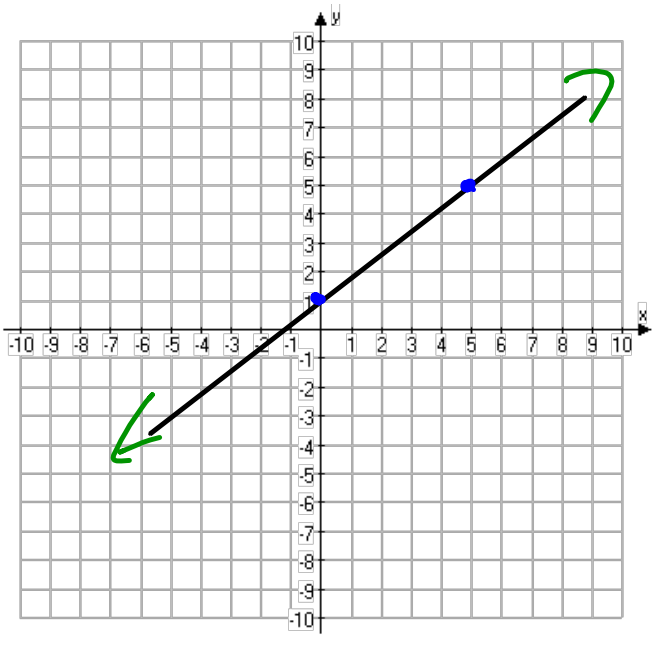
To Graph a line in the form y = mx + b:

1. Plot the y-intercept
2. From the y-intercept, do the slope $\frac{2}{3}$ (**rise** and then **run**) and make a **point**
3. Use the points to make a straight line

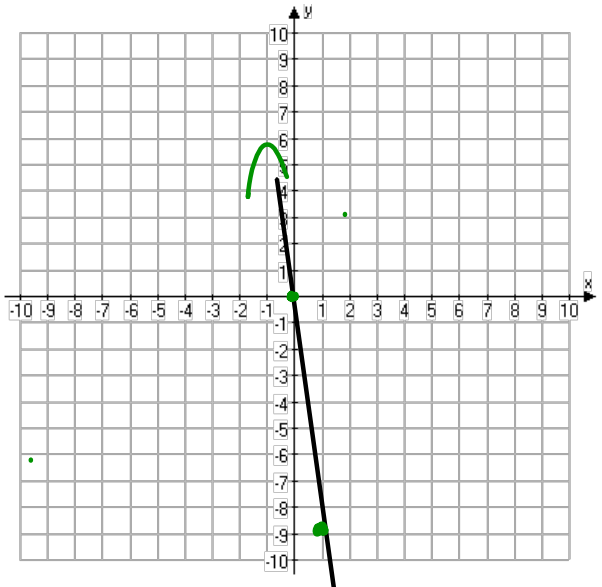


Ex. 2. Graph the equations on the grid:

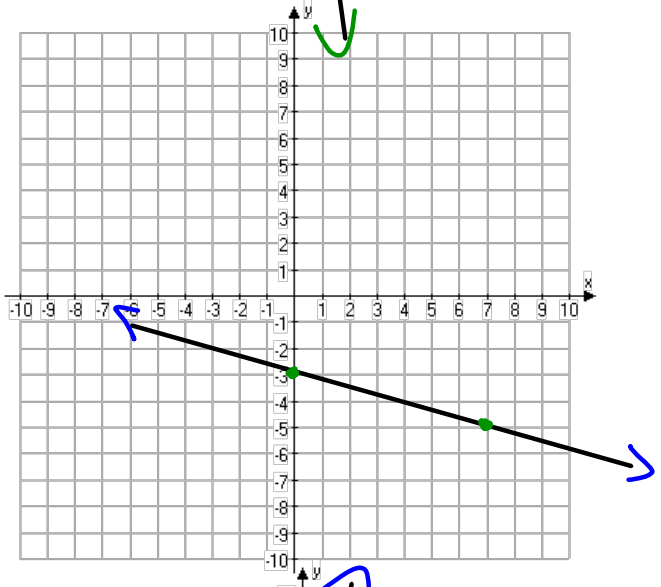
a) $y = \frac{4}{5}x + 1$



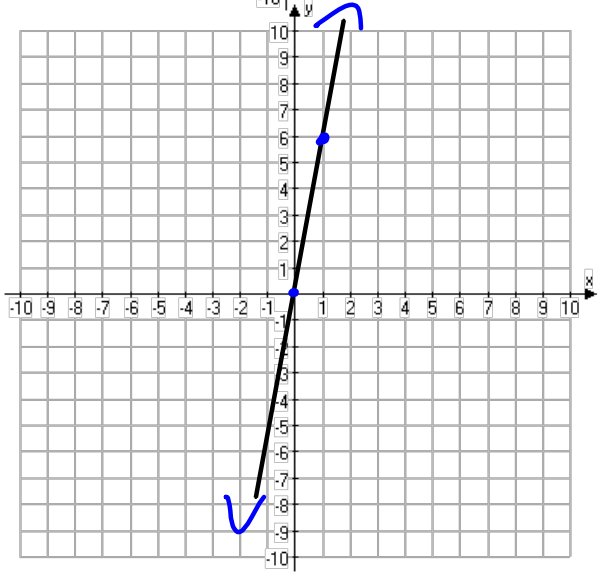
b) $y = \frac{-9x}{1}$



c) $y = \frac{-2x}{7} - 3$



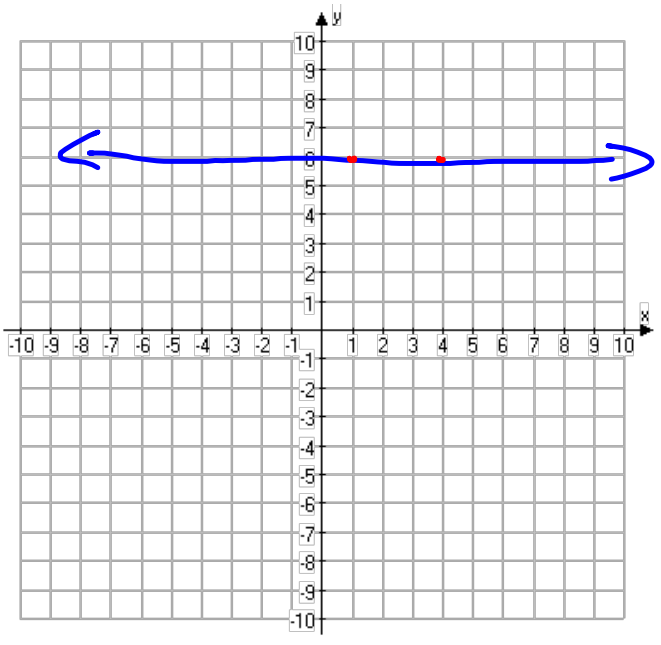
d) $y = 6x$



e) y = 6

*When the equation is in the form y=#, it is a horizontal line

$m = \frac{0}{3} = 0$



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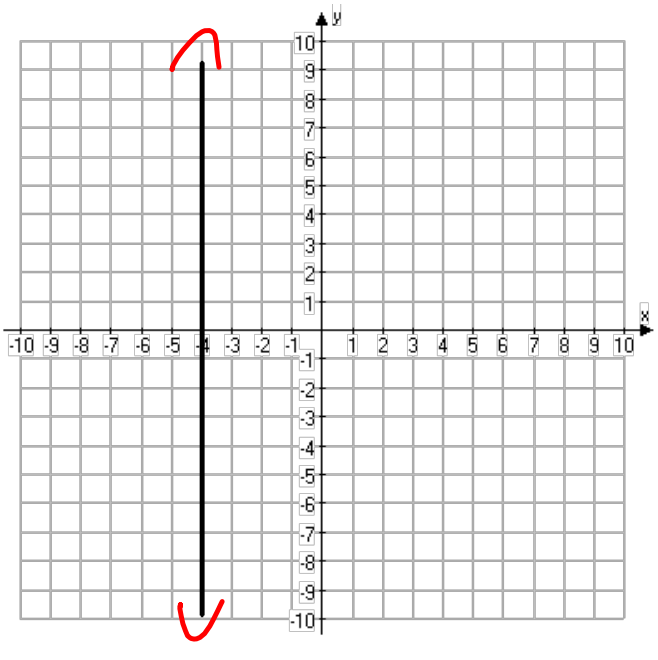
f) x = -4

*When the equation is in the form x=#, it is a vertical line



Homework:

Graphing Lines Handout

Quiz Tomorrow!

-Slope

-Equations of lines

-Graphing Lines