

Standard Form for Graphing a Line

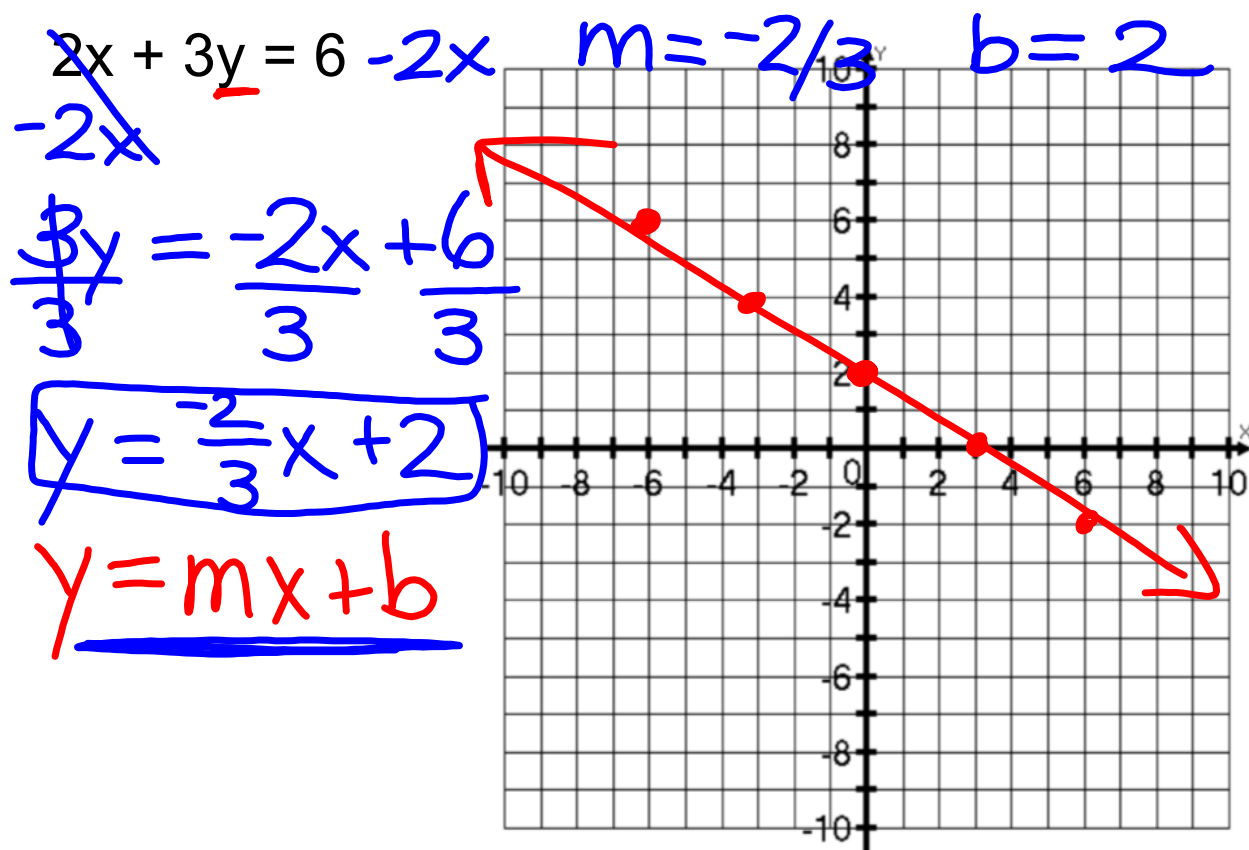
pg. 14

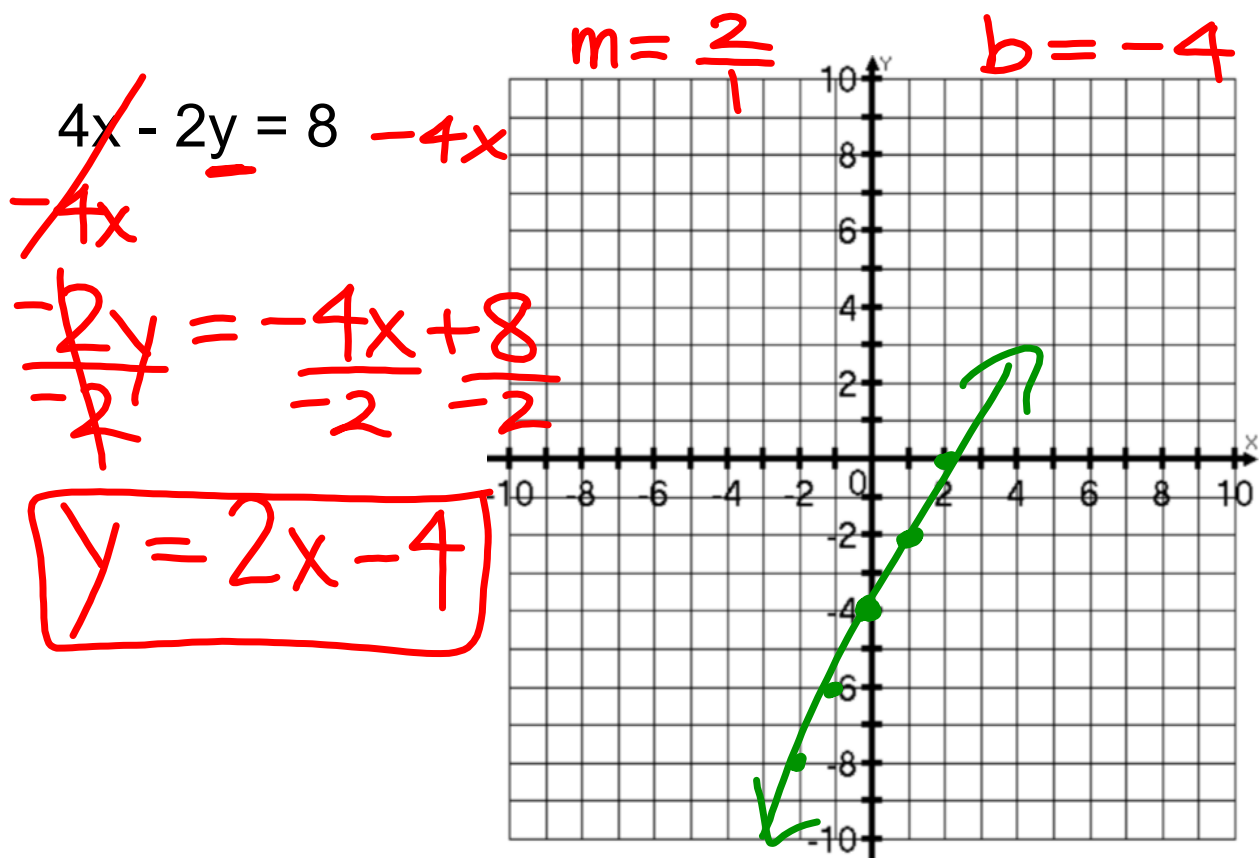
$$ax + by = c$$

$$y = mx + b$$
$$y = 2x + 3$$

Graphing from standard form:
(Option 1)

1. Solve for y and plot in slope-intercept form



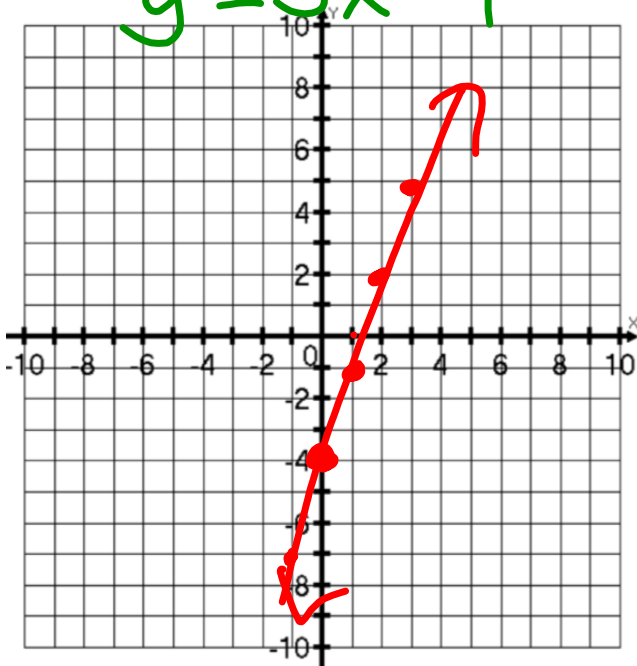


Put in slope-intercept form and graph.

$$3x - y = 4 \quad -3x$$

$$-y = -3x + 4$$

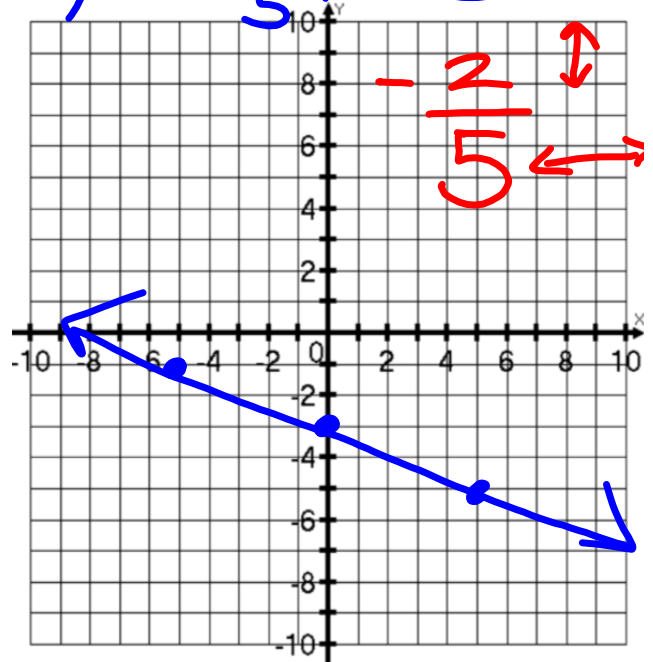
$$y = 3x - 4$$

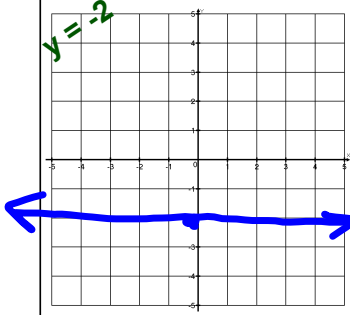
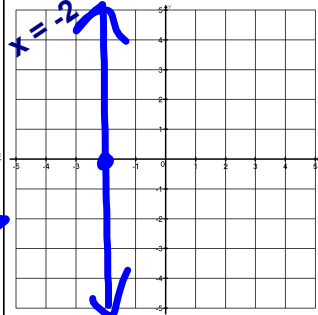


$$2x + 5y = -15 \quad -2x$$

$$5y = -2x - 15$$

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



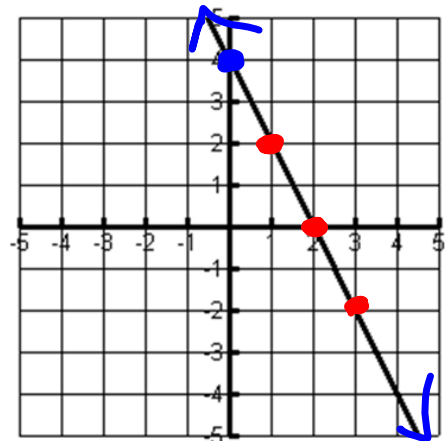
	$y = \#$	$x = \#$
Slope	0	Undefined
Type of Line	Horizontal	Vertical
		

Finding slope-intercept form from a graph:

1. Identify where the graph crosses your y-axis. This is your "b" value.

2. Find 2 points that are where the graph crosses gridlines. Starting at the left point, count up or down how many units it takes to be even with the other point. This is the top number of your "m". Count right how many units it takes to reach the point. This is the bottom value of "m". Write as fraction.

3. Replace "m" and "b" in $y = mx + b$ with your values.



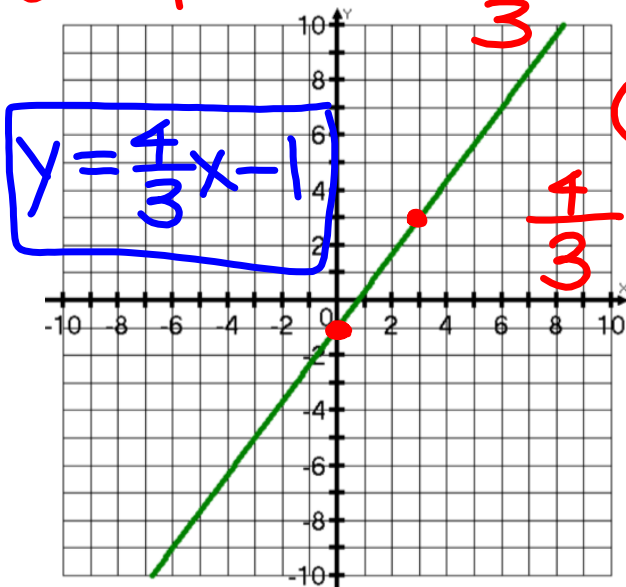
$$b = 4$$

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

$$y = -2x + 4$$

Write equations for the following graphs

$$b = -1 \quad m = +\frac{4}{3}$$



$$b = 5 \quad m = -\frac{4}{1}$$

