Algebra 2

Unit 3 : Graphing Functions

- Review over Slope-Intercept form
  - > Identify Slope
  - > Identify Y-intercept
- Convert Equations to Slope-Intercept form
- Graph Lines in Slope-Intercept Form

Refresher over Slope-Intercept Form

$y = mx + b$

m : Slope b : y-intercept

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Ex 1: $y = \frac{1}{2}x - 4$

m: 1/2 y-int: (0, -4)

Ex 3: $y = 0.01x + 34.85$

m: .01
y-int: (0, 34.85)

Ex 2: $y = -3x + \frac{4}{5}$

m: $\frac{-3}{1}$

y-int: (0, 4/5)

Ex 4: $y = \sqrt{\frac{34}{5}} * x - 67$

m: $\sqrt{\frac{34}{5}}$

y-int: (0, -67)

Graphing Lines:

1. Get the equation in slope-intercept form (if needed)

2. Plot the y-intercept.

3. Use the slope to plot a second point, starting from the y-intercept

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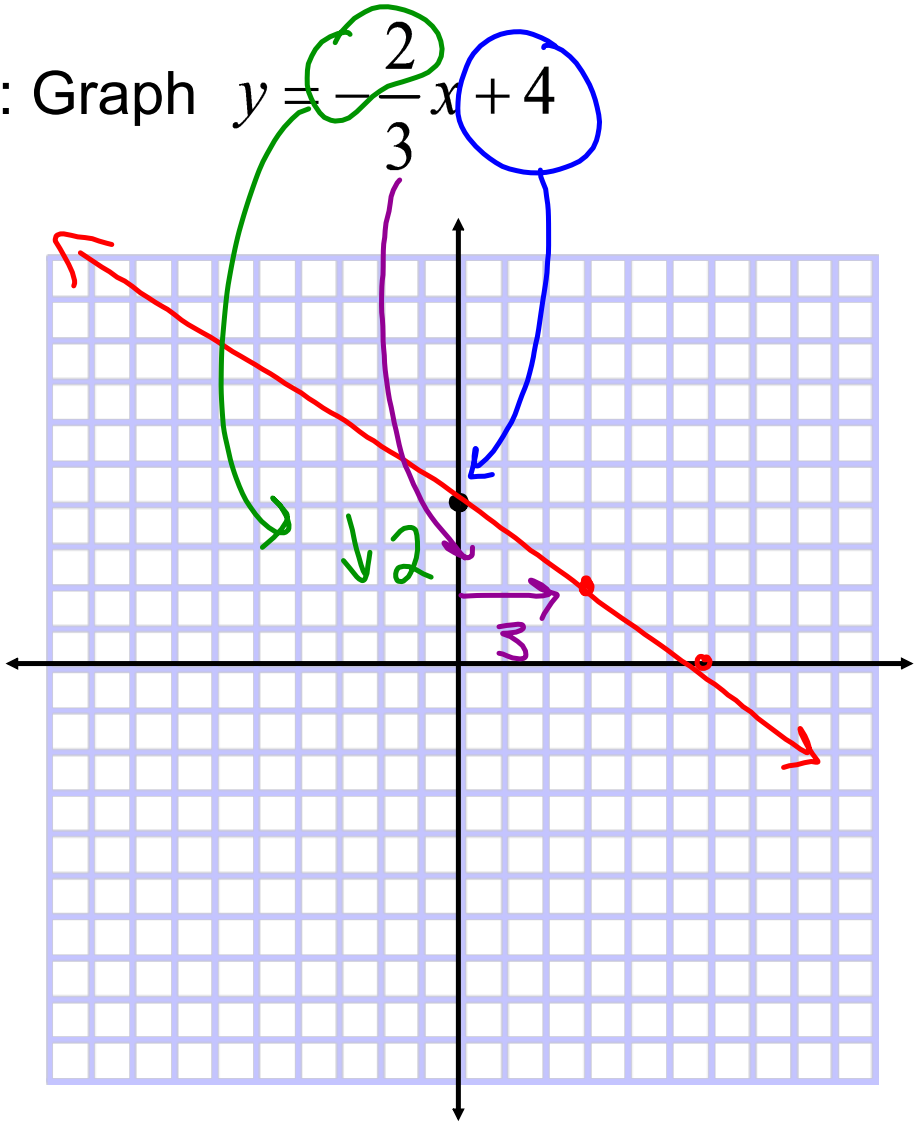
Ex: Graph $y = -\frac{2}{3}x + 4$



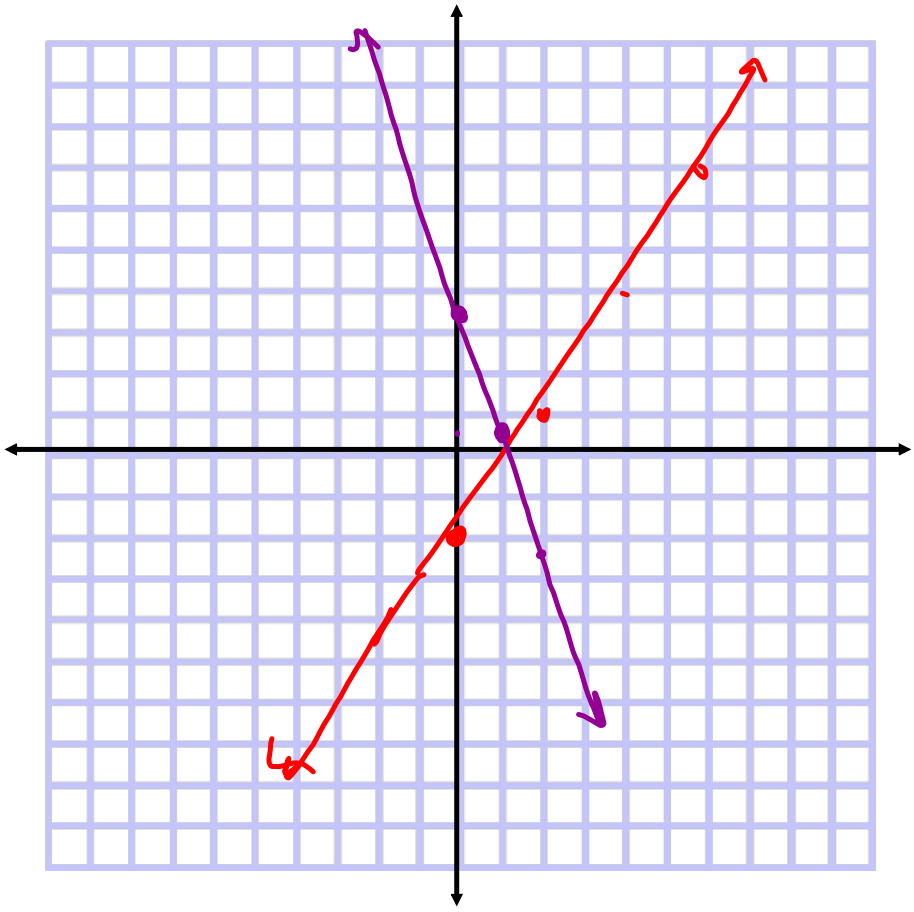
You try: Graph the following two lines.

Line 1:

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

Line 2:

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



Converting to Slope-Intercept Form:

- Use solving rules to get y by itself

Ex: Convert to slope-intercept form and graph.

$y - 3x = 4$

$+3x \quad +3x$

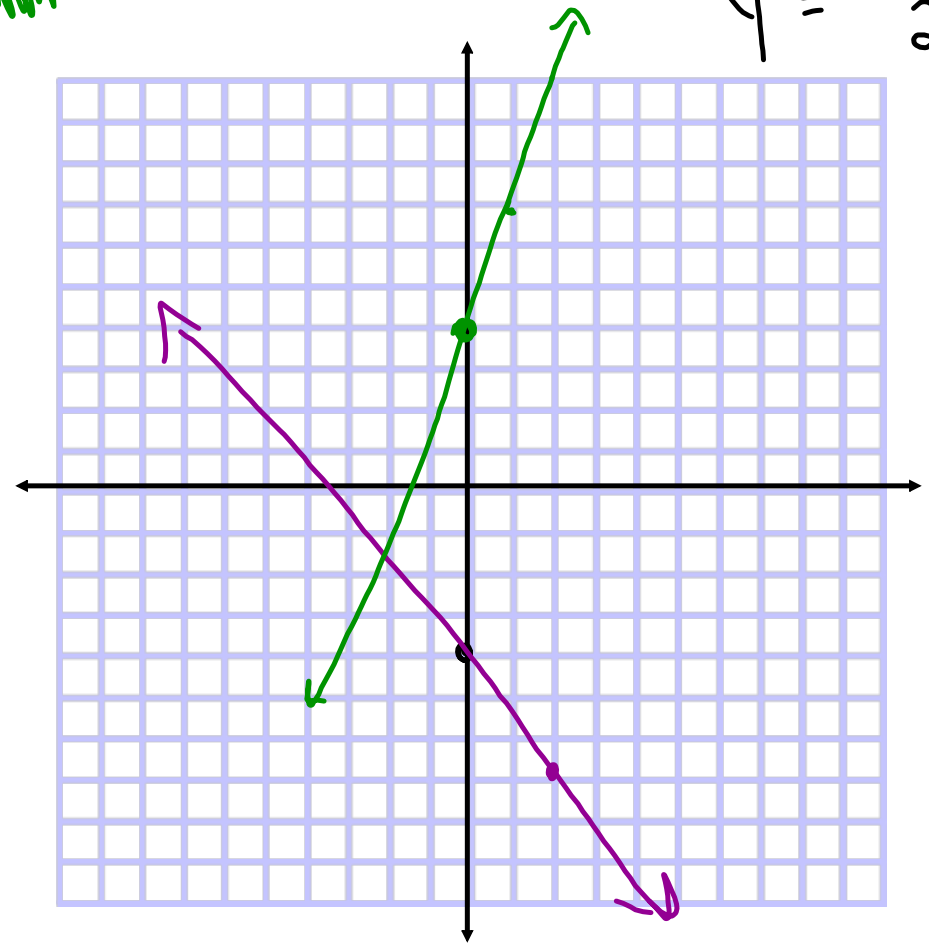
$y = 3x + 4$

$2y + 3x = -8$

$-3x \quad -3x$

$\frac{2y}{2} = \frac{-3x}{2} - \frac{8}{2}$

$y = -\frac{3}{2}x - 4$



Homework:

Unit 3.1 Worksheet

QA over this material!