

Lesson 3: Graphing Using

(1) slope and y-intercept and (2) x- and y-intercepts

Warm-Up

Ticket Out Day 1 and Day 2

Method 1: Slope and y-intercept

Examples:

Graph the following lines using their slope and y-intercept.

1) $y = 2x + 5$

Slope: _____

y-intercept: _____

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

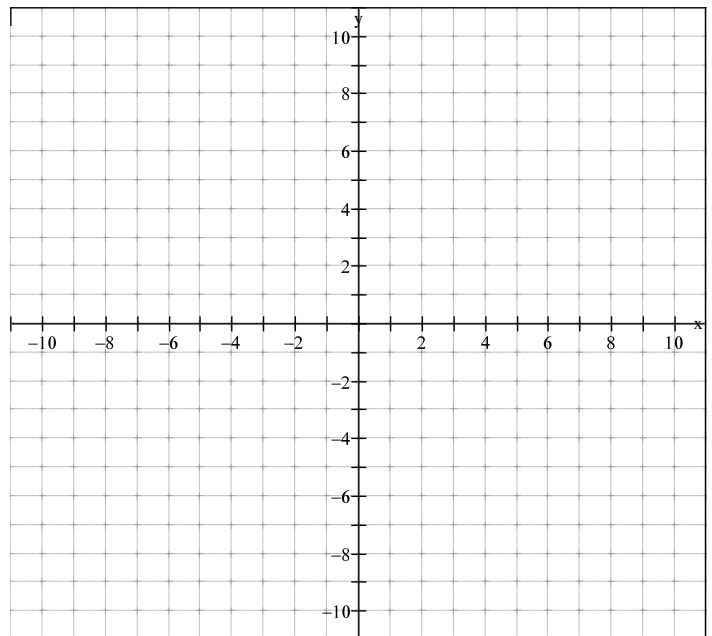
Slope: _____

y-intercept: _____

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

Slope: _____

y-intercept: _____



Review the Steps:

1. Plot the y-intercept as a point.

2. Use $\frac{\text{rise}}{\text{run}}$ to graph the next two points.

3. Connect the points with an extended line and label.

Method 2: x- and y-intercepts

Recall:

y-intercept – where the line crosses the _____.
the value of x is _____

x-intercept – where the line crosses the _____.
the value of y is _____

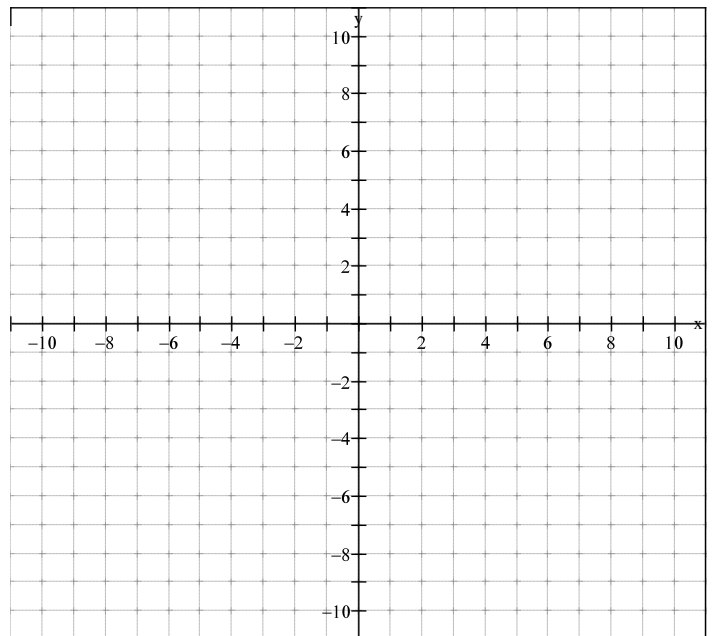
Examples:

Graph the following equations using their x- and y-intercepts.

1) $3x - 2y = 6$

x-intercept:

y-intercept:



2) $6x - 5y - 30 = 0$

x-intercept:

y-intercept:

Review the Steps:

4. To find the x-intercept, let _____ and solve for _____.
5. To find the y-intercept, let _____ and solve for _____.
6. Plot the two points $(x, 0)$ and $(0, y)$ and draw the line.

Homework : p. 129 #13, p 319 #3abfhi