

Warm-up:

Solve the following equations. Show all steps.

$$1. \quad 3x + 8 = -22$$
$$\begin{array}{r} -8 \\ 3x = -30 \\ x = -10 \end{array}$$

$$2. \quad \frac{x}{-4} - 9 = -5$$
$$\begin{array}{r} +9 \\ \frac{x}{-4} = 4 \\ x = -16 \end{array}$$

$$3. \quad 4(x + 2) = -36$$

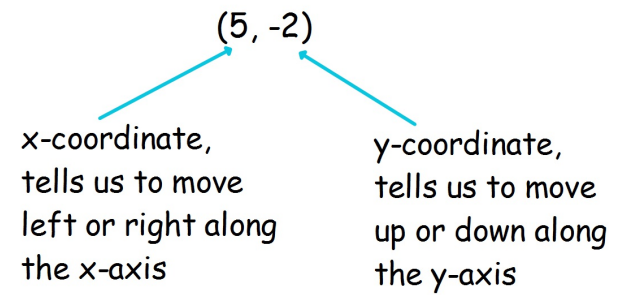
$$\begin{array}{r} 4x + 8 = -36 \\ -8 \quad -8 \\ \hline 4x = -44 \\ x = -11 \end{array}$$

$$4. \quad (2x - 6) = 9$$

$$\begin{array}{r} +6 \\ 2x - 6 = 9 \\ +6 \quad +6 \\ \hline 2x = 15 \\ \frac{2x}{2} = \frac{15}{2} \\ x = 7.5 \end{array}$$

Launch

How do you plot a point?



Graphing Review

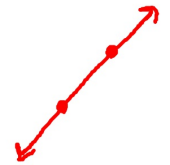
Obj: Graphing linear equations in slope intercept form and point slope form.

What 2 things do you need to graph any line?

2 points
point & slope

What is slope intercept form?

$$y = mx + b$$



What does the m and b represent?

m = slope
b = y-intercept

Graphing in slope intercept form:

1. Identify the slope and y intercept.

2. Plot the y-intercept. The b value.

3. From the y-intercept, move with the slope.

slope = $\frac{\text{rise}}{\text{run}}$

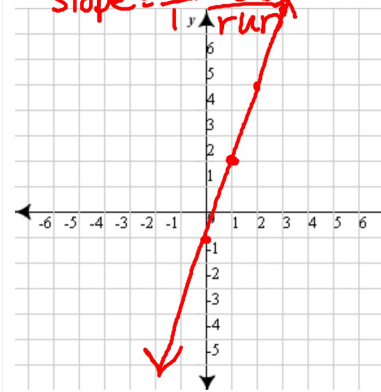
Remember,
y-axis is vertical

Graph the following equations.

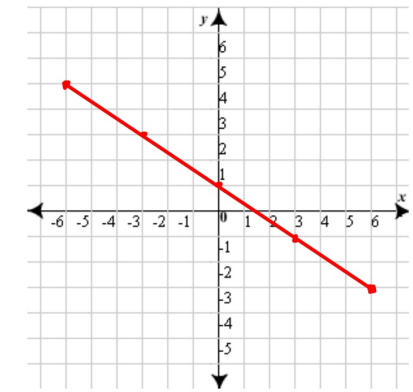
$$y = mx + b$$

1. $y = 3x - 1$

slope = $\frac{3}{1}$ rise run y-intercept



2. $y = -2/3x + 1$



Homework: Graph the following problems on the graph paper:

1. $y = 2/3x - 2$

2. $y = -2x + 3$

3. $y = 4$

4. $y = -1/4x$

5. $y = 5x - 2$