



$y = \#$
 $y = 5$
 horizontal line



$X = \#$
 ex: $X = 4$
 vertical line



- ① Put equation in slope intercept form (get y by itself/solve for y)
- ② Identify the slope & y-intercept
- ③ Plot your y-intercept (on y-axis)
- ④ Go up/down & over your slope

Graphing lines:

• on y-axis
 • coordinate pair
 for y-intercept is always (0, #)
y-intercept:

$$\text{slope: Rise} = \frac{\text{Run}}{(\text{up \& down})} = \frac{y_2 - y_1}{x_2 - x_1}$$

(left & right)

slope-intercept form: $y = mx + b$
 Slope / Rate of change
 y-intercept

Graphing Equations Review

Name: _____ Class Period _____

Write in Slope-Intercept Form:

1. $2y = 8x + 10$
 $\frac{2y}{2} = \frac{8x}{2} + \frac{10}{2}$
 $y = 4x + 5$

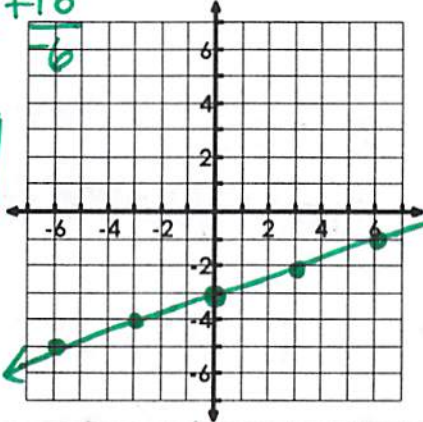
2. $2x - y = -3$
 $\frac{-2x}{-1} - \frac{y}{-1} = \frac{-3}{-1}$
 $-y = -2x - 3$
 $y = 2x + 3$

3. $2x - 5y = 15$
 $\frac{-2x}{-5} - \frac{5y}{-5} = \frac{15}{-5}$
 $-y = -\frac{2}{5}x + 3$
 $y = \frac{2}{5}x - 3$

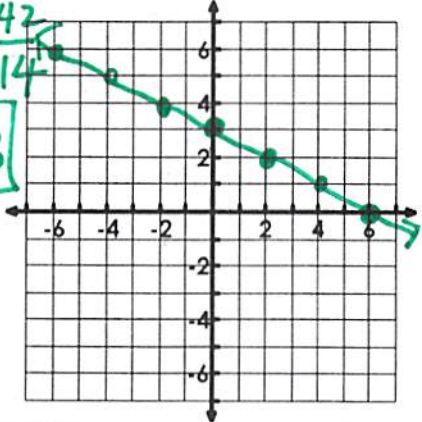
4. $-3x - 4y = -6$
 $\frac{+3x}{-4} - \frac{4y}{-4} = \frac{-6}{-4}$
 $-y = \frac{3}{4}x - \frac{3}{2}$
 $y = -\frac{3}{4}x + \frac{3}{2}$

Re-Write and Graph

5. $2x - 6y = 18$
 $\frac{-2x}{-6} - \frac{6y}{-6} = \frac{18}{-6}$
 $-y = -\frac{1}{3}x + 3$
 $y = \frac{1}{3}x - 3$
 Slope: $\frac{1}{3}$
 y-inter: -3



6. $7x + 14y = 42$
 $\frac{7x}{14} + \frac{14y}{14} = \frac{42}{14}$
 $\frac{1}{2}x + y = 3$
 $y = -\frac{1}{2}x + 3$
 Slope: $-\frac{1}{2}$
 y-inter: 3



Solutions to Systems of 2 linear equations: ordered

- Will be written as an coordinate pair (x, y)
- Makes both equations true when you plug it back in.

Check whether the ordered pairs are solutions of the system:

$$\begin{aligned} x - 3y &= -5 \\ -2x + 3y &= 10 \end{aligned}$$

A. (1, 4)

$$\begin{aligned} 1 - 3(4) &= -5 \\ 1 - 12 &= -11 \neq -5 \end{aligned} \quad \text{NO}$$

B. (-5, 0)

$$\begin{aligned} -5 - 3(0) &= -5 \\ -5 + 0 &= -5 \\ -5 &= -5 \end{aligned} \quad \begin{aligned} -2(-5) + 3(0) &= 10 \\ 10 + 0 &= 10 \\ 10 &= 10 \end{aligned} \quad \text{YES}$$