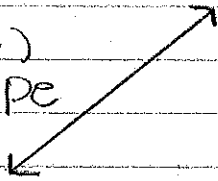
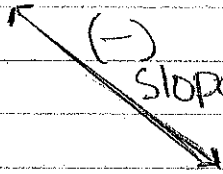


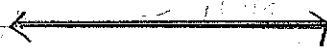
3.4

## Slope Intercept Form

Remember:

(+)  
slope(-)  
slope

zero slope



$$y = m x + b$$

slope

y-  
intercept

$$y = \left(\frac{2}{3}\right)x + 4$$

What is the slope?  $\frac{2}{3}$   
 What is the y-intercept? 4

$$y = \left(\frac{1}{2}\right)x - 7$$

slope =  $\frac{1}{2}$   
 y-int = -7

Write an equation for a line that has a slope of \_\_\_\_\_ and a y-intercept of \_\_\_\_\_.

slope : 2  
y-int : -2

$$y = -2x + 2$$

slope :  $\frac{1}{5}$   
y-int : 8

$$y = \frac{1}{5}x + 8$$

$$y - 2x = 1$$

---

$$+ 2x = 2x$$

$$y = mx + b$$

$$y = 2x + 1$$

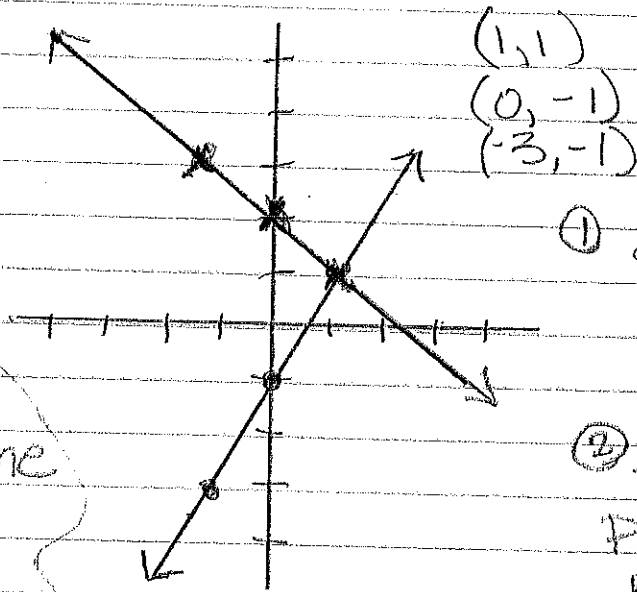
$$y + 4x = 2$$

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$$- 4x = -4x$$

$$y = -4x + 2$$

Write an equation from a graph



(1, 1)  
(0, -1)  
(-3, -1)

① start w/ Y-intercept:

(-1)

② then slope:

Pick two points  
rise 2 run 1

$\frac{2}{1}$  or 2

\* line  
negative line  
y-int. 2  
slope  $-\frac{1}{1}$

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

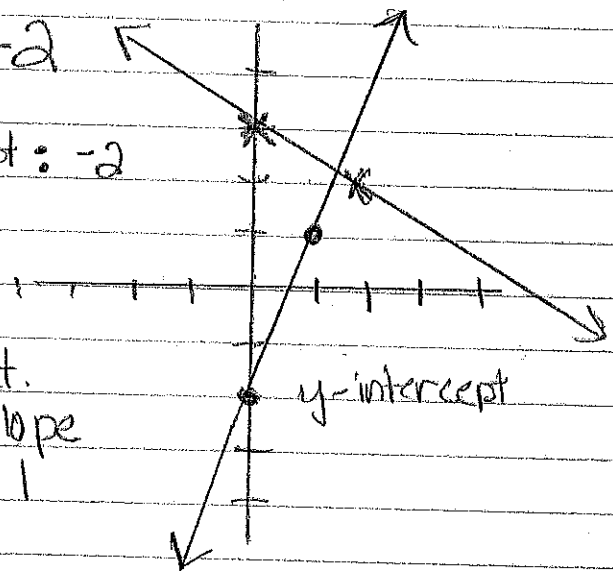
$y = mx + b$   
 $y = 2x - 1$

Graph to equation

$y = 3x - 2$

y-intercept: -2  
slope:  $\frac{3}{1}$

start at y-int.  
and apply slope  
up 3 over 1



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

negative slope

y-intercept