

p. 250

②  $(2, 1)$   $(8, 4)$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$\frac{1 - 4}{2 - 8} = \frac{-3}{-6} = \boxed{\frac{1}{2}}$$

⑤  $2x + 9y = -18$   $-2x$   $y = mx + b$

$$\boxed{m = -\frac{2}{9}} \\ \boxed{b = -2}$$

$$\frac{9y}{9} = \frac{-2x}{9} + \frac{-18}{9}$$

$$y = -\frac{2}{9}x - 2$$

(16)

two trees:

(x)  $t = \# \text{ of years}$

(y)  $h = \text{height}$

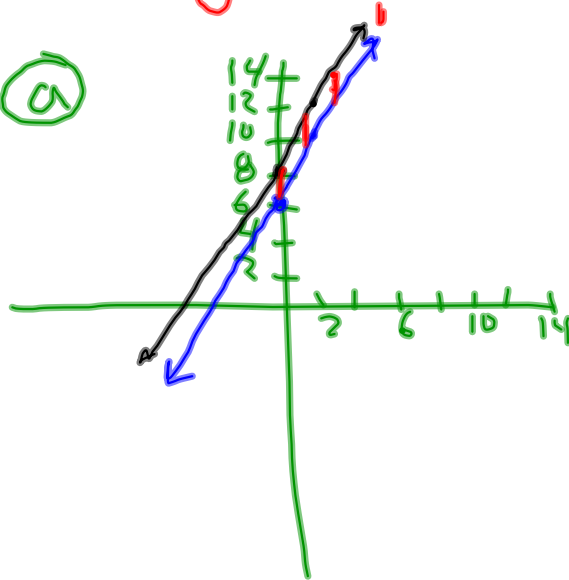
$$h = 2t + 6$$

$$h = 2t + 8$$

short  $y = 2x + 6$

$y = 2x + 8$  tall

(a)



(b) ALWAYS  
2 feet

$$1. \frac{4x - 2y = -8 - 4x}{-4x \quad -2} \quad y = 2x + 4 \quad 2. \frac{-9x + 3y = 21 + 9x}{+9x \quad 3} \quad y = 3x + 7$$

3. You are traveling by bus. After 4.5 hours, the bus has traveled 234 miles. Use the formula  $d = rt$  where  $d$  is distance,  $r$  is rate, and  $t$  is time to find the average rate of speed of the bus.

$$\frac{234}{4.5} = \frac{r \cdot 4.5}{4.5}$$

$$r = \boxed{52 \text{ mph}}$$

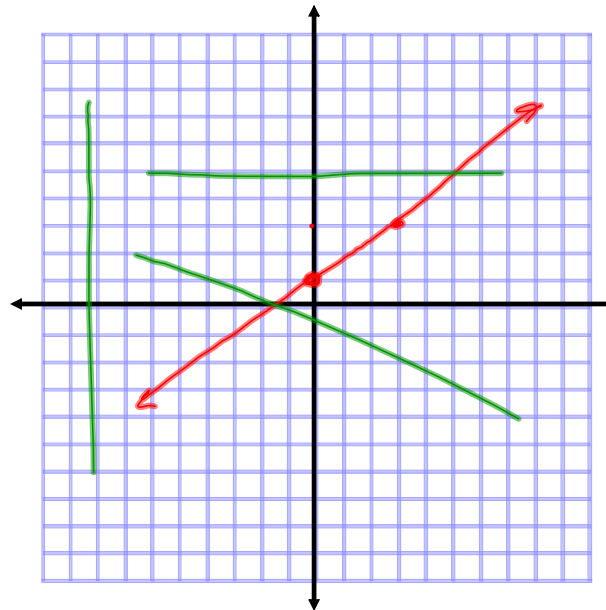
1. Identify the slope and y-intercept of the line  $2x + 4y = -16$ .  

$$\begin{aligned} -2x & \quad 4 \\ -2x/4 & \quad -2x/4 \\ y & = -\frac{1}{2}x - 4 \end{aligned}$$

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

$$m = +\frac{2}{3}$$

$$b = 1$$



## Important!

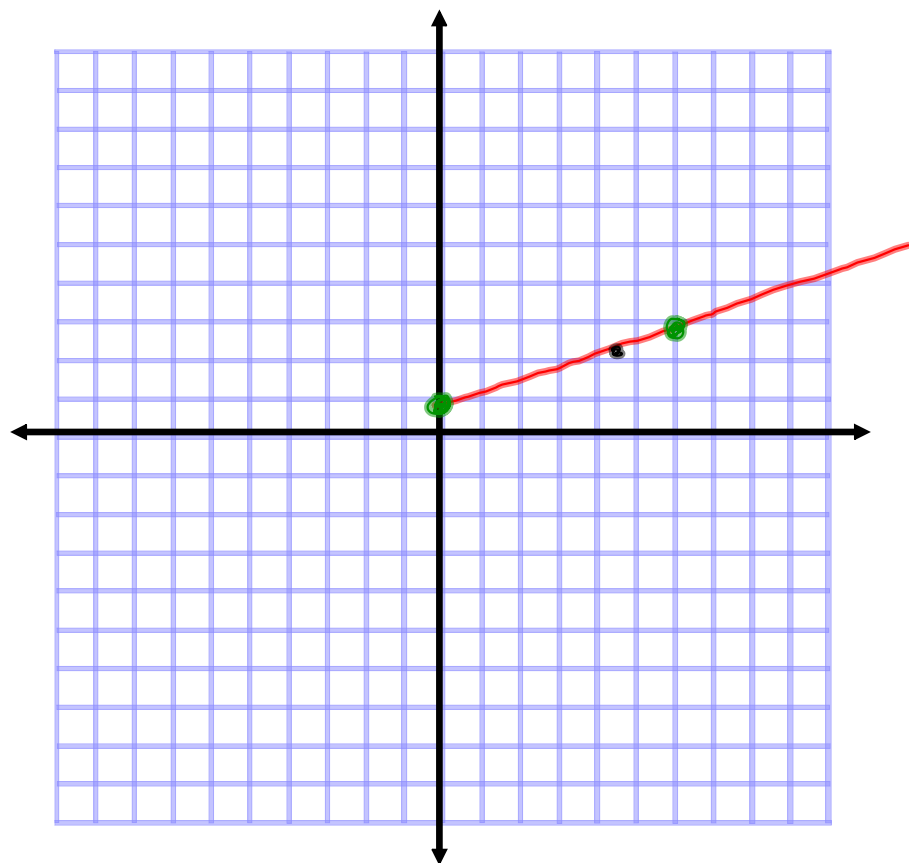
- Unit test (ch. 4 & 5) -  
Wednesday, 10/22
- Last day of the quarter is  
Wed., 10/29

→ Your grade as of 10/29  
will determine if you get credit

→ You need to have passed the 1<sup>st</sup> two  
skills tests by FRIDAY, 10/24

schedule a time!

be patient



equation:

-visually find the  
y-intercept

$$(0, 1) \quad b = 1$$

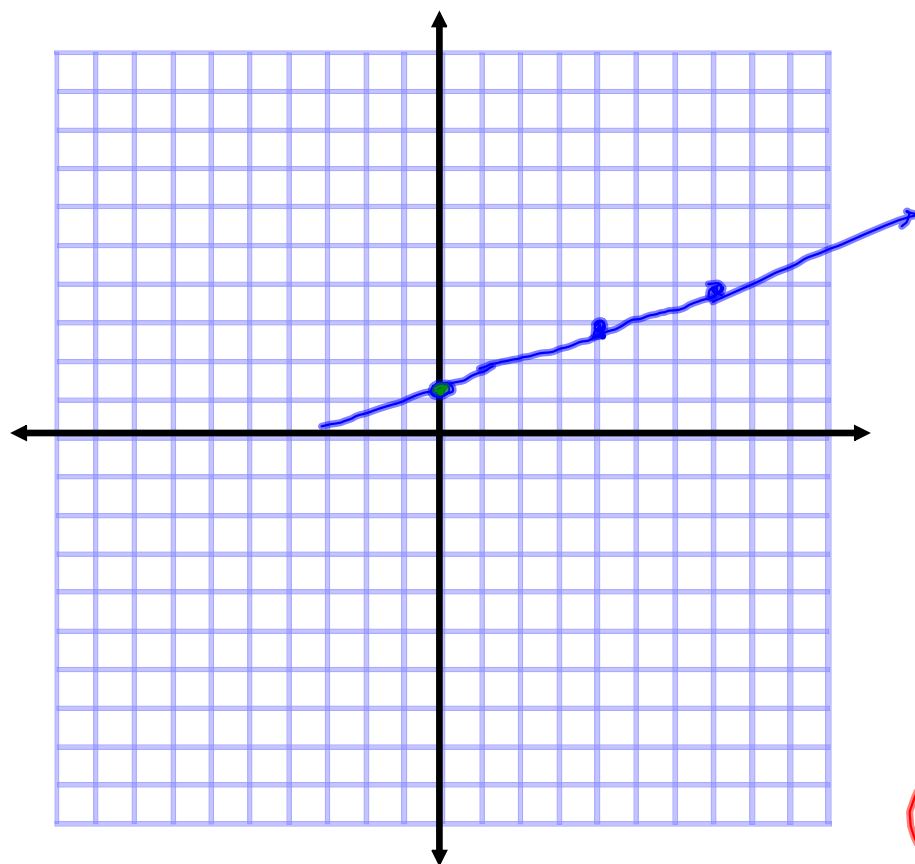
Slope =

$$\frac{\text{rise}}{\text{run}} = \frac{2}{6} = \frac{1}{3}$$

$$m = \frac{1}{3}$$

$$y = mx + b$$

$$y = \frac{1}{3}x + 1$$



$(7, 4)$  and  $(4, 3)$

$$\text{Slope} = \left( \frac{4-3}{7-4} \right) = \frac{1}{3}$$

$$\boxed{\frac{1}{3}}$$

$$y = mx + b$$



$$f(x) = mx + b$$

$$x = 2$$

$$f(2) = m(2) + b$$

Homework:

7. 286, 4-28 (even), 45, 46