

Notes

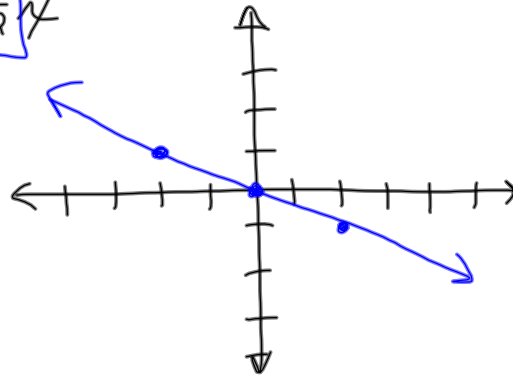
Problem 3:

Graph

$$y = \boxed{-\frac{1}{2}x}$$

x	y
-2	+1

$-\frac{1}{2}(-2)$



Problem 4:

Suppose \$15 (US) is worth about \$150 Mexican Pesos.

a. What is an equation that relates US dollars x to Mexican pesos y?

$$y = mx$$

$$\frac{150}{15} = \frac{m \cdot 15}{15}$$

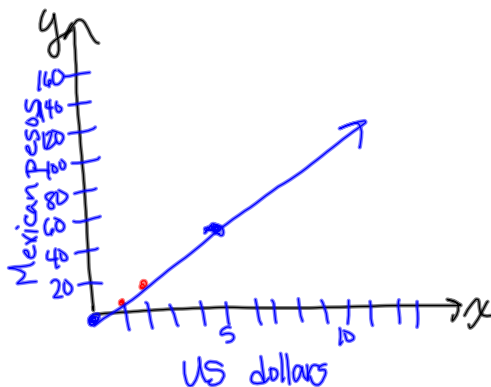
$$10 = m$$

$$m = \frac{y}{x} = \frac{150}{15}$$

$$m = 10$$

$$\boxed{y = 10x} \quad m = \frac{10}{1}$$

b. What is the graph of this equation?



x	y = 10x
5	50

$10 \cdot 5$

Problem 5

Do these quantities vary directly?

- a. the number of ounces of cereal and the number of Calories the cereal contains

Yes, as the number of ounces **increases**, the number of Calories **increases**. When one is 0, the other is 0.

- b. the amount of money you have left and the number of items you purchase

As the number of items you purchase **increases**, the amount of money you have **decreases**

No (inverse variation)

Sec. 5.3 Slope-Intercept Form

Slope-Intercept Form

$$y = mx + b$$

\downarrow slope \downarrow y-intercept

Problem 1:

What are the slope and y-intercept of the graph of

$$y = 3x - 6$$

slope: 3

y-intercept: -6

Problem 2:

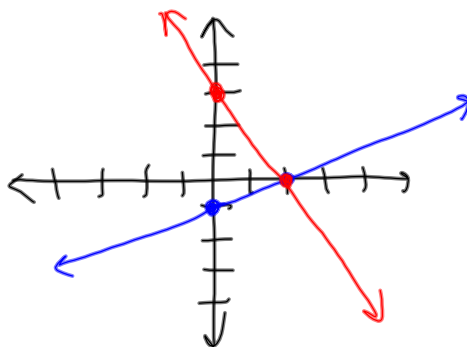
What is an equation of the line with slope 5 and y-intercept 8?

$$y = mx + b$$

$$y = 5x + 8$$

Problem 3:

What is the equation of the line?



$$y = mx + b$$

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

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