

Name: _____
 Period _____

Date: _____
 Henderson - Math 8

Homework for Week 7

Monday: HW#7A

1.) $-8x + 4 = 6x - 20 + 2x$

$$\begin{aligned} -8x + 4 &= 8x - 20 \\ -8x &\quad -8x \\ \hline -16x + 4 &= -20 \\ -4 &\quad -4 \\ \hline -16x &= -24 \\ -16 &\quad -16 \\ \hline x &= 1.5 \end{aligned}$$

2.) $\frac{x}{3} - 5 = -2$

$$\begin{aligned} \frac{x}{3} - 5 &= -2 \\ \frac{x}{3} + 5 &+ 5 \\ \hline \frac{x}{3} &= 3 \\ (3) \frac{x}{3} &= 3(3) \\ x &= 9 \end{aligned}$$

3.) $3.6(x + 4) = -3.6x$

$$\begin{aligned} 3.6x + 14.4 &= -3.6x \\ -3.6x &\quad -3.6x \\ \hline 14.4 &= -7.2x \\ -7.2 &\quad -7.2 \\ \hline -2 &= x \end{aligned}$$

4.) $\frac{3}{5}x - 15 = \frac{6}{5}x + 12$

$$\begin{aligned} \frac{3}{5}x - 15 &= \frac{6}{5}x + 12 \\ -\frac{3}{5}x &\quad -\frac{3}{5}x \\ \hline -15 &= \frac{3}{5}x + 12 \\ -12 &\quad -12 \\ \hline -27 &= \frac{3}{5}x \end{aligned}$$

$$\left(\frac{5}{3}\right) -27 = \frac{3}{5}x \left(\frac{5}{3}\right) \quad x = -45$$

5.) $3(6 - 4x) = -2(6x - 9)$

$$\begin{aligned} 18 - 12x &= -12x + 18 \\ +12x &\quad +12x \\ \hline 18 &= 18 \end{aligned}$$

Infinite Solutions

Tuesday: HW#7B

Identify the rate of change (slope) and y-intercept from the given linear equations.

6.) $y = 4 - 3x$
 $m \rightarrow$
 slope: -3

y-intercept 4

7.) $5y = 10x - 15$
 $\frac{5}{5} \frac{5}{5} \frac{5}{5}$
 $y = 2x - 3$
 rate of change: 2

y-intercept -3

8.) $3y = 2x - 9$
 $\frac{3}{3} \frac{2}{3} \frac{9}{3}$
 $y = \frac{2}{3}x - 3$
 rate of change: $\frac{2}{3}$

y-intercept -3

Describe in words how to find the y-intercept when all you are given is the linear equation.

The y-intercept is the constant in the "b" position when the equation is in $y = mx + b$ form.

Write the equation of the line containing the following rate of change (slope) and y-intercept.

9.) slope: 3

y-intercept = -8

$y = 3x - 8$

10.) y-int: -2

slope = 4

$y = 4x - 2$

11.) $m = \frac{-1}{3}$

b = -9

$y = -\frac{1}{3}x - 9$

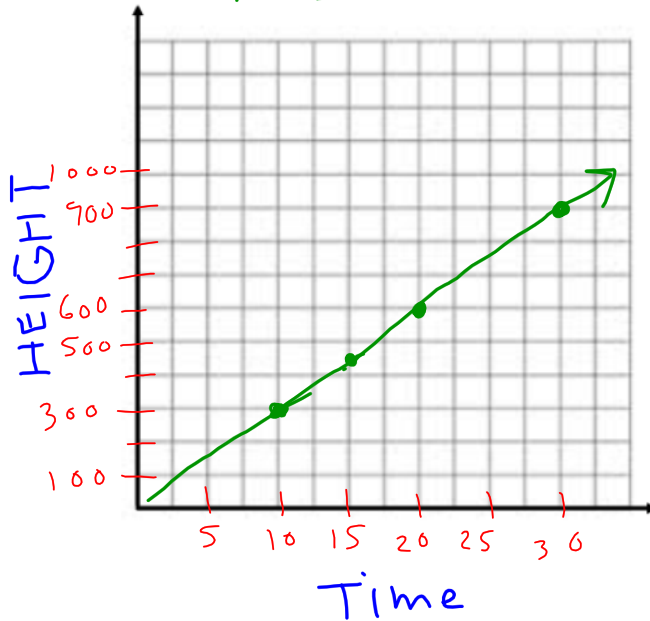
Did you write the letter "x" in your answer???

Wednesday: #7C

12.) Construct and label a line graph from the data table:

Height over time

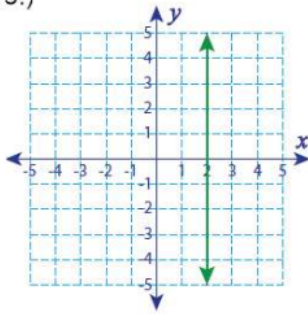
Time in Minutes	Height of the Elevator
10	300
15	450
20	600
30	900



Thursday: HW#7D

Choose the correct equation to match the graph shown:

13.)

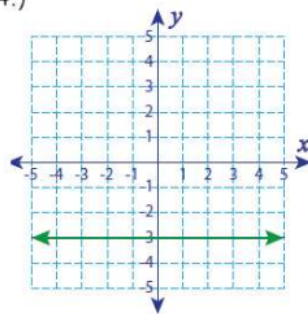


a.) $y = 2$

~~b.) $x = 2$~~

c.) $y = x$

14.)

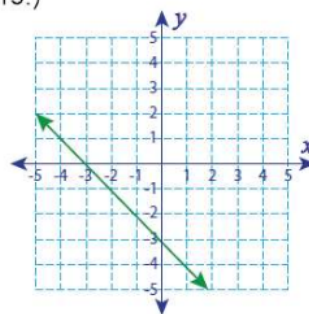


~~a.) $y = 3$~~

b.) $x = -3$

c.) $y = -3x - 3$

15.)



a.) $y = -3$

~~b.) $y = x - 3$~~

c.) $y = -x + 3$