

Chapter 2: Study Guide Quiz Take 2

LT3: Write the equations of lines in slope intercept form (2-3 Pg. 74)

2.) Directions: Re-write the equation of the line in slope-intercept form

$$y - 5 = -2(x + 6)$$

$$\begin{array}{r} +5 \\ +5 \end{array}$$

$$y = -2x - 12 + 5$$

$$y = -2x - 7$$

$$y + 2 = 3(x - 1)$$

$$\begin{array}{r} -2 \\ -2 \end{array}$$

$$y = 3x - 3 - 2$$

$$y = 3x - 5$$

LT4: Write an equation of a line given its slope and a point on the line (2-4 Pg. 81)

3.) Directions: Write an equation of the line containing the points below:

(1, 4) and (2, 8)

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{8 - 4}{2 - 1}$$

$$= \frac{4}{1}$$

$$= 4$$

(-10, 4) and (-14, 7)

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{7 - 4}{-14 - (-10)}$$

$$= \frac{3}{-4}$$

LT 6: Analyze transformations of functions (2-6 Pg. 99)

8.) What is the new equation of the line below after the translation given:

2 units left of the equation $y - 3 = \frac{1}{2}(x - 8)$

x variable negative
so +2

$$y - 3 = \frac{1}{2}(x - 6)$$

3 units up of the equation $y + 5 = \frac{3}{4}(x + 2)$

y variable positive
so -3

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

LT 7: Graph absolute value functions (2-7 Pg. 107)

10.) What is the vertex of the linear absolute value function)

$$f(x) = |x - 5| + 10$$

$$y = |x - h| + k \quad (h, k)$$

$$(5, 10)$$

$$f(x) = |x + 3| - 7$$

switch negative

$$y = |x - h| + k \quad (h, k)$$

$$(-3, -7)$$