Warm Up 2/21/19

1. Write the equation of the line that passes through the points (-6, 16) and (-2, -14)

$$m = \frac{-14-16}{-2+6} = \frac{-30}{4} = \frac{-15}{2}$$

$$y - y_1 = m(x - x_1)$$
$$y + 14 = -\frac{15}{2}(x+2)$$
$$y + 14 = -\frac{15}{2}x - 15$$
$$-14 \qquad -14$$
$$y = -\frac{15}{2}x - 29$$

2. Find the average rate of change for the function $g(x) = -3x + 12$ over the interval $-8 \le x \le 4$

$g(-8) = -3(-8) + 12 = 36$ $(-8, 36)$

$g(4) = -3(4) + 12 = 0$ $(4, 0)$

$$m = \frac{0-36}{4+8} = \frac{-36}{12} = \boxed{-3}$$

3. At Brenda's Bikes, you can rent a bike for $20 plus an additional $2.50 per hour.

a. Write an equation in slope-intercept form to represent the situation. $y = 2.50x + 20$

b. What would it cost to rent for 5 hours?

$$y = 2.50x + 20$$
$$y = 2.50(5) + 20$$
$$= 12.50 + 20$$
$$= \boxed{\$32.50}$$

Unit 2 Study Guide