Slope as a Rate of Change – Practice

1. Determine the y-values and the rate of change in the y-values for each equation.

a) $y = -2x + 2$

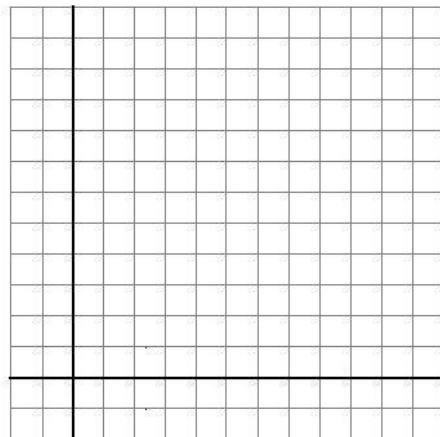| x	y	Rate of Change
-2		
-1		
0		
1		
2		

b) $y = 5x - 1$

x	y	Rate of Change
-2		
-1		
0		
1		
2		

2. Karl works at a local grocery store, where he earns $8.25/h. A typical shift lasts 6 h.
    a) Complete the table of values to show his total earnings for up to 6 hours of work.
    b) Determine the rate of change in his total earnings.
    c) Graph your table of values and connect the points with a straight line.

Hours Worked	Total Earnings ($)	Rate of Change
0		
1		
2		
3		
4		
5		
6		

d) Choose any two points on the line and find the rise and run between them.

   rise = _____   **run** = _____

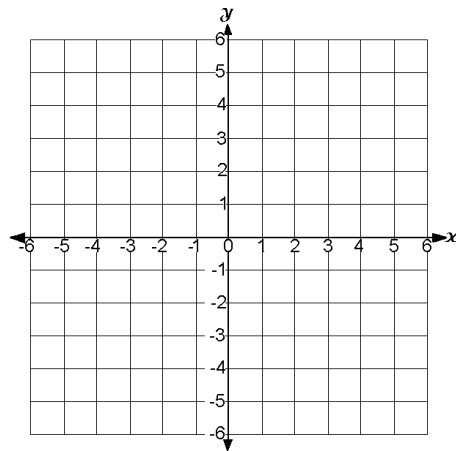e) Find the slope of the line.

$$slope(m) = \frac{rise}{run}$$

$$=$$

f) What does the rate of change **represent** in **THIS** problem?

3. The equation of a straight line is $y = 2x + 2$
   a) Create a table of values for this equation. Use x values from -3 to 2
   b) Graph your table of values and draw a straight line through the points.

x	y

c) Choose any two points on the line and find the rise and run between them.
   rise = _____   **run** = _____

d) Find the slope of the line.

$$slope(m) = \frac{rise}{run}$$

$$=$$

e) What is the rate of change of this line? _____

4. Janice works on an assembly line packing dolls into boxes to sell in stores. Janice can pack 15 dolls in 1 hour.

   a) Complete the table of values to show how many dolls Janice packs in 6 hours of work.

   b) Find the rate of change in the number of dolls that Janice packs.

   c) What does the rate of change **represent** in **THIS** problem?

Hours Worked	Total # of Dolls Packed	Rate of Change
0		
1		
2		
3		
4		
5		
6		