2.7-2.89 Quiz review WHAT DO YOU REMEMBER? Name:_____
Bridge to Alg 2 11-12 Date:_____ Per:____

FORMULAS

SLOPE = $\frac{y_2 - y_1}{x_2 - x_1}$

Slope – Intercept Equation of a Line: $y = mx + b$

To find the x-intercept, put zero in for ___y___

To find the y-intercept, put zero in for ___x___

1) Find the equation of the line with the given information

A) $slope = \frac{1}{5}$ y-intercept: (0, -3)

$y = \frac{1}{5}x - 3$

B) (-3, 5) (6, -1) $m = -\frac{2}{3}$

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

$5 = -\frac{2}{3}(-3) + b$

$3 = b$

C) Slope = -3 (4, -10)

$y = -3x + 2$

D) m = 4 b= 5

$y = 4x + 5$

2) Best Buy makes an announcement that they are closing in 30 mintues. All customers are asked to make their purchases and exit the building.

Time in Minutes	Number of people In store
5	231
4	215
6	198
8	160
10	122

A) Find the equation of the best fit line using the table.

$y = -17.61x + 301.44$

B) What is the meaning of the slope in the context of the problem?

17 people leave the store each minute

C) What is the meaning of the y-intercept in the context of the problem?

300 people were in The store when the announcement was made.

D) What is the meaning of the x-intercept in the context of the problem?

when There were Zero Customers in The STore

E) According to your line best fit, at what time will there be only 50 customers left in the building?

14.28 minutes

$50 = -17.61x + 301.44$

3) Graph each piecewise function below:

A) $y = \begin{cases} 2x & , x < -1 \\ -2 & , -1 < x < 3 \\ x-3 & , x \geq 3 \end{cases}$

B) $y = \begin{cases} -4 & , x \leq -2 \\ x & , -2 < x \leq 1 \\ 5 & , x > 1 \end{cases}$