Chapter 3 Pre-test Name:_____ Date:_____ Per:_____

Learning Targets	Prob. #	Prof. Level
3.1 I can simplify expressions with exponents.	1	
1.3 I can determine outputs for any function when given inputs.	1	
3.2 I can multiply binomials and polynomials.	2	
3.3 I can solve Algebraic equations.	2	
3.4 I can solve Algebraic absolute-value equations.	3ab	
1.1 I can complete a table and create a graph when given a function.	3a	
1.2 I can make a complete description of a function.	3c, 4*	
2.1 I can write an equation given multiple representations of a linear function.	4	
2.2 I can complete a table given multiple representations of a linear function.	4	
2.3 I can create a graph given multiple representations of a linear function.	4	
2.4 I can find the slope and intercepts of a linear function from multiple representations.	4	
2.5 I can interpret the slope and y-intercept of a linear function from multiple representations.	4	

1. Simplify each exponential expression below. Then evaluate each expression, letting x = -2 and y = 3

a. $x^7 \cdot x^5$	**b.** $(3x^2)(-2x^3)$	**c.** $(2x^2)^3$
d. $\frac{x^5y^3}{x^6y}$	**e.** $3x^0y$	**f.** $x^{-4} \cdot x^7$

2. Solve for x. For full credit, prove your answer by plugging it into the original equation.

a. $(x + 2)(x - 4) = (x + 5)(x - 3)$	**b.** $(-x - 7)(x + 11) = (-x + 10)(x - 9)$

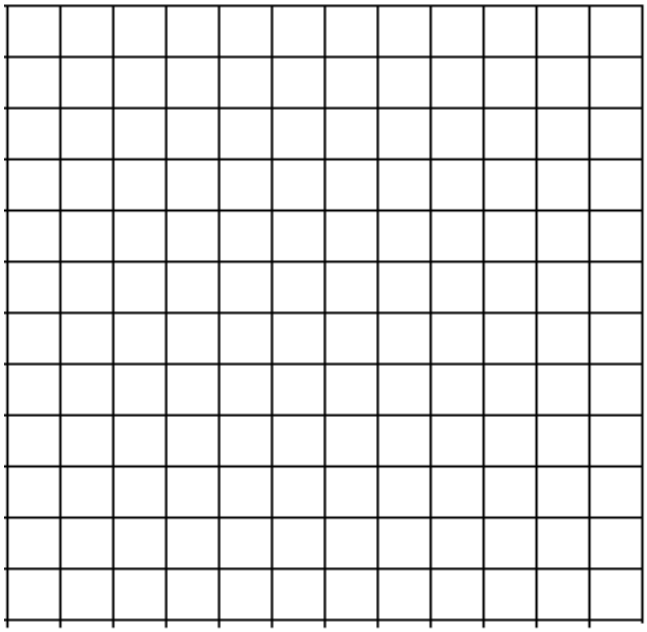
3. $y = |x - 2| + 4$

a.) Graph the given function using the table provided.

x							
y							

b.) Solve for x. Do not include this value for x in your table or graph.

$112 = |-x - 2| + 4$



c.) Fully describe the function.

4. Find the equation of the $y = mx + b$ line featured in the table. Complete the table with values of your choosing that seem like they might be helpful for graphing the line. Graph the line, determine its x- and y-intercepts and, for full credit, substitute the values you find for the intercepts to verify your answers. *Optional for additional credit on standard 1.2*: As you do your work for this problem, fully describe this function in complete sentences.

x		**-10**			**4**		
y		**35**			**7**