**Algebra 1 –** Formative “Retake”  **Name:**

**Unit 3-** *Criterion B and D­*  **Period: 3 8 Date: 12/18/17**

***CRITERION B:*** *Investigating Patterns*

**Situation:** You open a lemonade stand at the train station. Below is a table of last week’s income as a function of the number of lemonades sold, which follows a linear pattern.

1. **Complete the table of values.** Let $m$ be the number of lemonades sold and $c$ be the cost, in dollars, of $m$ lemonades.
2. **Use the table to find the cost per lemonades** (assume that each lemonade costs the same amount).

***\*\*****Show all calculations to the right of the table and answer on the line provided below\*\**

1. **Use the graph to plot the points represented in the table of values.**
* *Label each point on the graph with its coordinates*
* *Draw a line through the points*
* *Label the axes*

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|  |  |
| --- | --- |
| $$m$$ | $$c$$ |
| **4** | **15.00** |
|  | **24.50** |
| **10** |  |
| **13** | **45.50** |
|  | **56.00** |

**Slope: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. **Use the graph to find the slope of the line that passes through the points given in the table.**
	1. Show the slope on the graph. Verify that the slope on the graph is the same as the slope found with the table.

* 1. What does the slope represent in the context of the problem?
1. **Use the graph below to answer the following questions. *SHOW YOUR WORK!***
	1. Complete the table of values.

|  |  |
| --- | --- |
| **x** | **y** |
|  | **-4** |
| **0** |  |
| **1** |  |
|  | **5** |

* 1. **Slope: \_\_\_\_\_\_\_\_\_\_**
	2. **Equation of the Line: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
	3. If the graph were extended, what would the value of x be when the value of y is -7?

**Solution: \_\_\_\_\_\_\_\_\_\_\_\_\_**

***CRITERION D:*** *Applying Math to Real Life*

1. In a class, $\frac{3}{4}$ of the students have cats.
2. If there are 32 students in the class, how many students have cats? ***SHOW YOUR WORK!***
3. What is the ratio of students with cats to students without cats? Write your answer as a reduced ratio.
4. Players on a football team prefer a sports drink over water in a ratio of 3:2. The coach always provides one drink per player at each game. If there are 65 players on the team, how many bottles of each will the coach need to bring to the game? ***SHOW YOUR WORK!***

***INCLUDE WRITING AND SOLVING A PROPORTION IN AT LEAST ONE OF THE ANSWERS BELOW***

1. Bottles of Sports Drinks: b. Bottles of Water: