1D "WORD" Name_____ Per: _____

WORK IN PENCIL AND SHOW YOUR WORK!

Objective: Write equations from story problems in slope-intercept form Due: Sept 4th/Sept 5th

1. The amount of money Joe the plumber charges is represented by the equation $C = 65h + 100$.
   a. Define the two variables. h =_____ C = _____
   b. What is the slope of the equation?_____ What does the slope represent in the context of the problem? _____
   c. What is the y-intercept? _____What does it represent in the story? _____
   _____
   d. If you were to hire Joe and he worked for 11 hours, how much would you owe him? _____
   e. If Joe said that he made $620 on a job, how many hours did he work? _____
   f. Complete the table and define your variables.

h:	*C:*
0	
2	
3	
11	

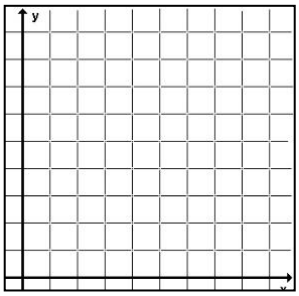
2. Laura lights a candle. The **height** of the candle is **6"** and **each hour** that it **burns it goes down by ½".**
   a. What is the slope of the equation representing the height of the candle? _____
   b. What does the slope represent in the context of the problem? _____
   c. What is the y-intercept? _____ What does it represent in the story? _____
   d. Define your variables:_____
   e. What is the x-intercept? _____ What does it represent in the story? _____
   f. How many hours will the candle burn before it is gone? _____.
   g. If the height of the candle is 2.75", how long has the candle burned? _____
   h. Make a table that fits this situation.

Hours	
	0
0	

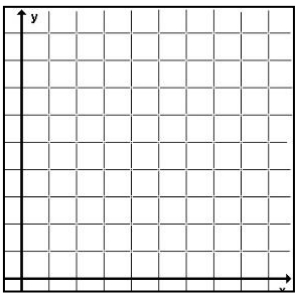
3. Barbara earns money and deposits $50 into a savings account. The bank pays her 7% annual interest each year that she keeps the money in the account.
   a. What is the y-intercept of the equation? _____
   b. What does the y-intercept represent in the context of the problem? _____
   c. What is the slope of the equation? _____
   d. What does the slope represent in the context of the problem? _____
   e. Define your variables:_____
   f. Write an equation to represent the story _____
   g. If she saves all of the money in her account for the next four years, how much will she have? _____

4. Ricardo is draining his pool for the winter. There are **240 gallons** in the pool and it is **drains out 60 gallons in 2 hours.**
   a. What is the slope of the equation representing Ricardo draining his pool? _____
   b. What does the slope represent in the context of the problem? _____
   c. Define your variables:_____
   d. Write an equation to represent the story _____
   e. How many hours will it take him to drain the pool? _____. On a graph, where do you see this?
      _____
   f. How many hours has he been draining the pool if there are 150 gallons left? _____
   g. Make a table that fits this situation
   h. Graph

(Don't forget to label the axis and scale)



5. Kristina is running the freshman class fundraiser. They are selling VHMS key chains for $6 each as a fundraiser. The PTA donates $35 up front.
   a. What is the slope? _____What does it represent in the context of the problem? _____
   b. What's the y-intercept?_____ What does it represent in the story? _____
      _____
   c. Define your variables _____
   d. Write an equation to represent the story _____
   e. If her goal is to raise $500, how many key chains must she sell? _____
   f. If she sells 58 key chains, how much money will she earn? _____
   h. List at least 3 data points that would fit the situation.
   i. Describe how to choose the **scale** for your axes for your graph.
   j. Graph (label and scale)



List the slope and intercepts:

6. $6y = 2x + 9$

Slope: _____
y-intercept: _____
x-intercept: _____

7. $20x + 5y = 5$

Slope: _____
y-intercept: _____
x-intercept: _____

8. $4x - 3y = 12$

Slope: _____
y-intercept: _____
x-intercept: _____