Name _____ Date _____/_____/_____
Algebra Mr. Towne

3.4 Notes

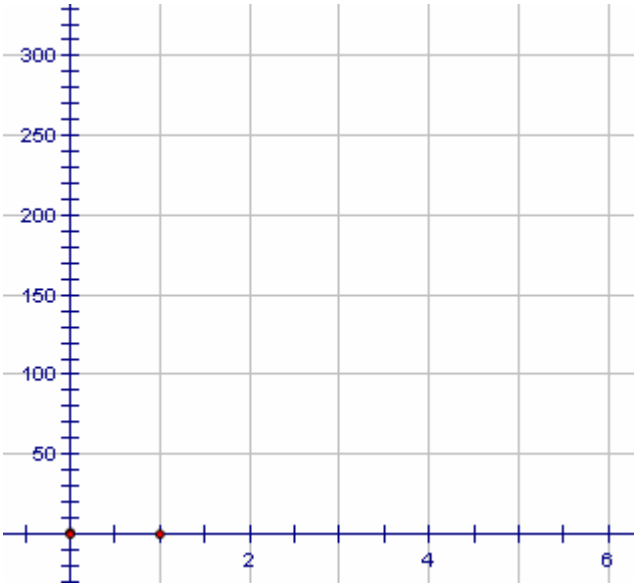
1) Alice is 300 miles from her home. She travels 60 miles per hour toward her house.
   a. Write her distance from home recursively

   b. Write her distance from home in slope-intercept form

   c. Fill in the table below.

Time (hours)	Distance from home (miles)
0	
1	
2	
3	
4	

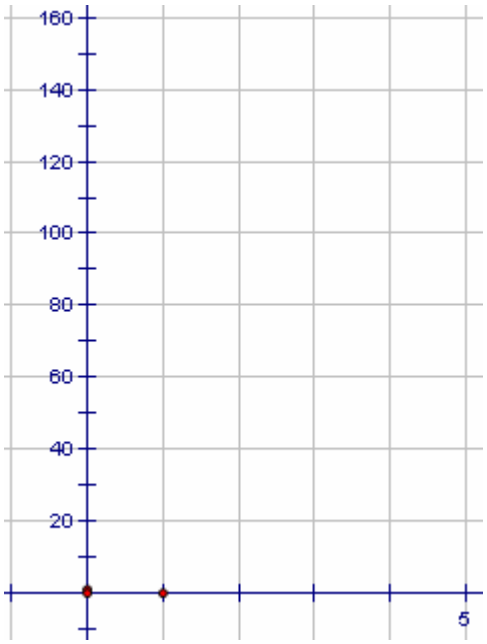
   d. Graph the information given.



2) The following table shows the amount of calories burned while swimming by Bertha after running to the pool.

Swimming Time (min)	Total Calories Burned
0	120
1	124
2	128
3	132
4	136

   a. Make a graph of the data



   b. Write the problem recursively

   c. Write the problem in slope-intercept form.

3) Given the recursive formula 7; Ans – 1.5 answer the following:

a. What is the first term of the sequence?

b. What is the second term of the sequence?

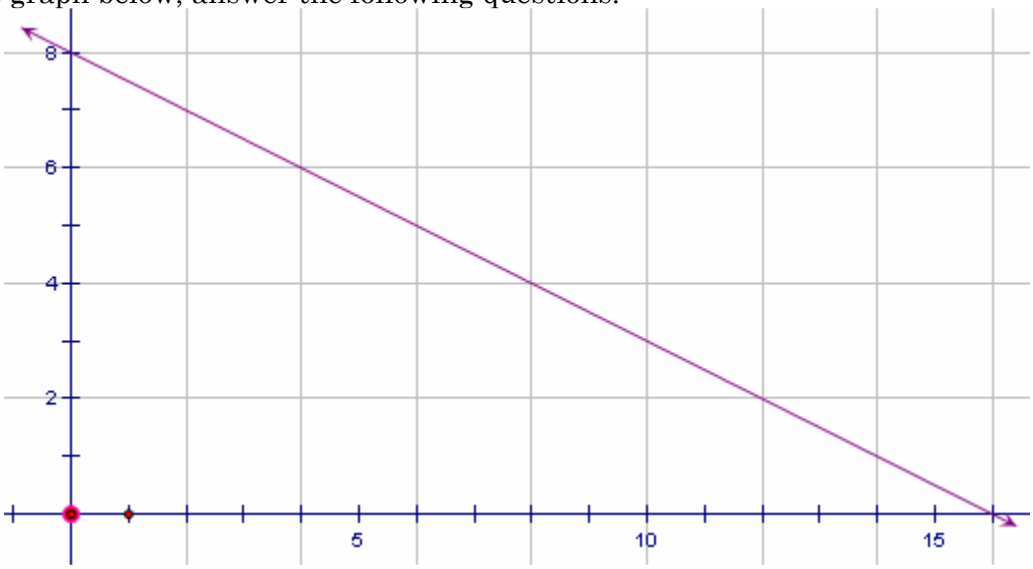
c. What is the third term of the sequence?

d. What term is the first one that is negative?

e. Write the formula in slope-intercept form.

f. Using the slope-intercept form, find the fiftieth term.

4) Using the graph below, answer the following questions:



a. What is starting value?

b. What is the value at $x = 1$?

c. What is the value at $x = 2$?

d. What is the value at $x = 3$?

e. Write a recursive formula to match the graph.

f. Write an explicit formula (slope-intercept form) to match the graph.

g. Show algebraically that if you substitute $x = 10$ into your explicit equation that your result is $y = 3$.

h. Show algebraically that if you substitute $y = 0$ into your explicit equation that your result is $x = 16$.