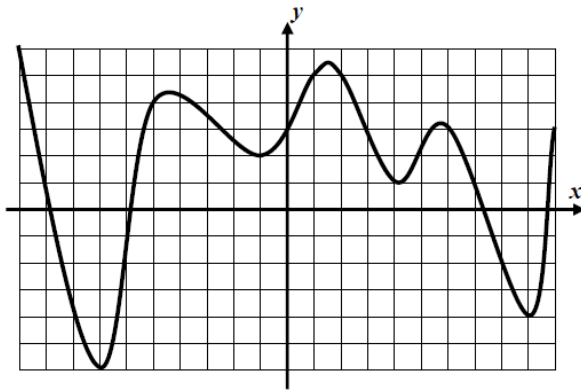


Name: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Class: \_\_\_\_\_

Algebra  
 Unit 4  
 HW 4-2

1)



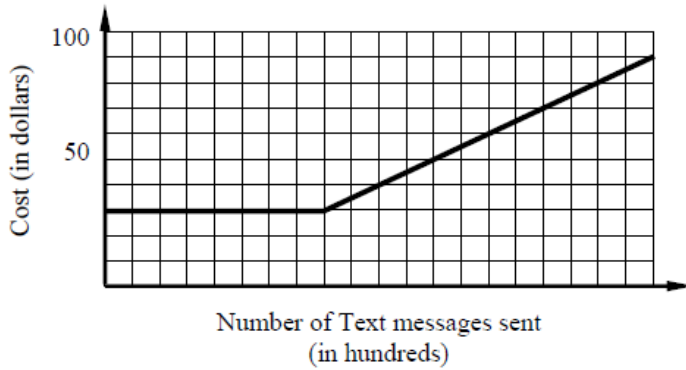
a)  $f(4) = ?$

b)  $x = ?$  when  $f(x) = 4$

c) Why is this graph a function?

2) Draw a graph of for the function  $f(x) = 4(3 - x) - 2$

3)



Using the following graph, what would  $f(400)$  be? What do you think happens at 800 text messages?

$$4) f(x) = \begin{cases} 3 - 2x & x \leq 1 \\ 2x - 1 & x > 1 \end{cases}$$

a) What would  $f(4) = ?$

b) What would  $f(1) = ?$

5) Draw a graph of the piecewise function in #4 between the interval  $-5 \leq x \leq 4$

6) If a function is defined as:  $h(x) = 4x - 5$  for  $x < 0$  and  $3x - 7$  for  $x \geq 0$  what would the value for  $h(0)$  be? If it was changed to  $h(x) = 4x - 5$  for  $x \geq 0$  and  $3x - 7$  for  $x < 0$  would the value of  $h(0)$  change?

7) If  $t(y) = \frac{10 - (y - 6) + 7y}{y^2 + 6y - 10}$  evaluate  $t(-2)$

8) Could the following points represent a function?  
 $(-2, 5), (5, 7), (7, 7), (-1, 8), (6, 8), (-2, 6)$