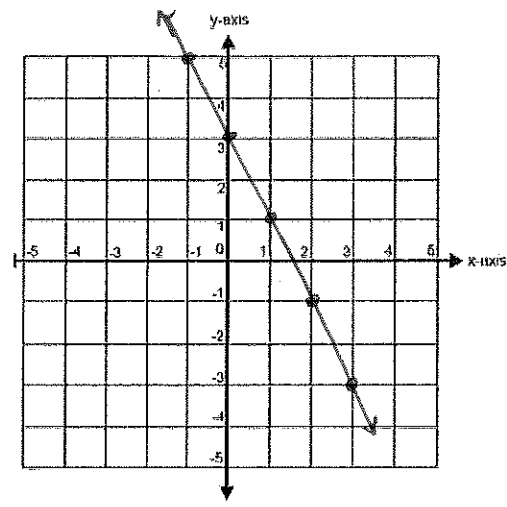


1. M.8.F.2 Fill in the table and graph the function  $y = -2x + 3$

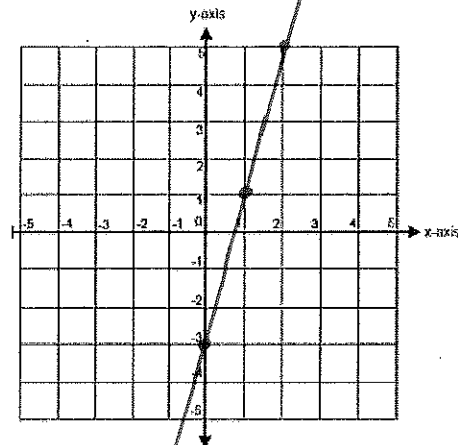
x	y
-1	5
0	3
1	1
2	-1
3	-3

$y = -2(-1) + 3$   
 $y = 2 + 3 = 5$



2. M.8.F.2 Fill in the table and graph the function  $y = 4x - 3$

x	y
-1	-7
0	-3
1	1
2	5
3	9



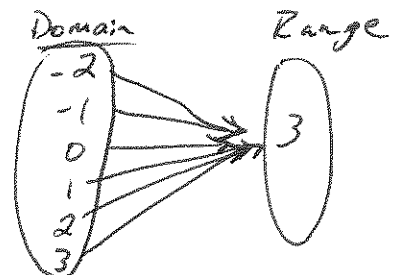
3. M.8.F.1 **Map** the following relation, labeling the domain and range and determine if it is a function. Explain your answer.

$\{(-2, 3), (-1, 3), (0, 3), (1, 3), (2, 3), (3, 3)\}$

DOMAIN:  $-2, -1, 0, 1, 2, 3$

RANGE:  $3$

FUNCTION? **Yes** or No (explain) *Each input has one output*



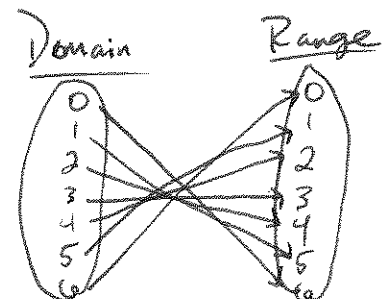
4. M.8.F.1 **Map** the following relation, labeling the domain and range and determine if it is a function. Explain your answer.

$\{(0, 6), (6, 0), (1, 5), (5, 1), (2, 4), (4, 2), (3, 3)\}$

DOMAIN:  $0, 1, 2, 3, 4, 5, 6$

RANGE:  $0, 1, 2, 3, 4, 5, 6$

FUNCTION: **Yes** or NO (explain) *Each input has one output*



x	y
3	6
4	6
5	7
5	8
6	10
10	9
11	11

5. Describe the relation given in the table. Explain.

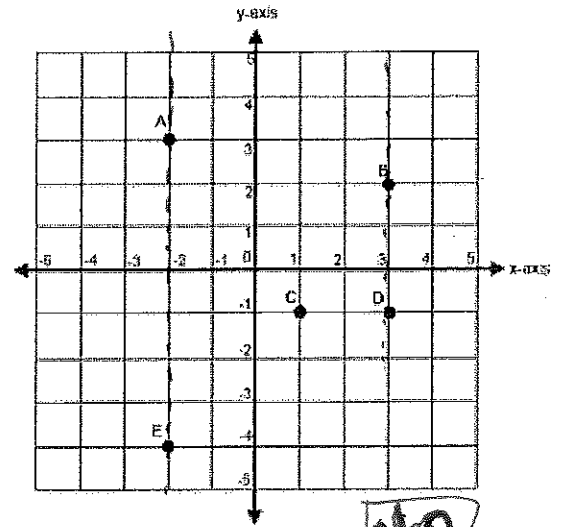
Domain: 3, 4, 5, 6, 10, 11

Range: 6, 7, 8, 9, 10, 11

Function? Yes or

No (explain): Input (5) has more than one output.

6. Is the relation below a function or not?



**NO**

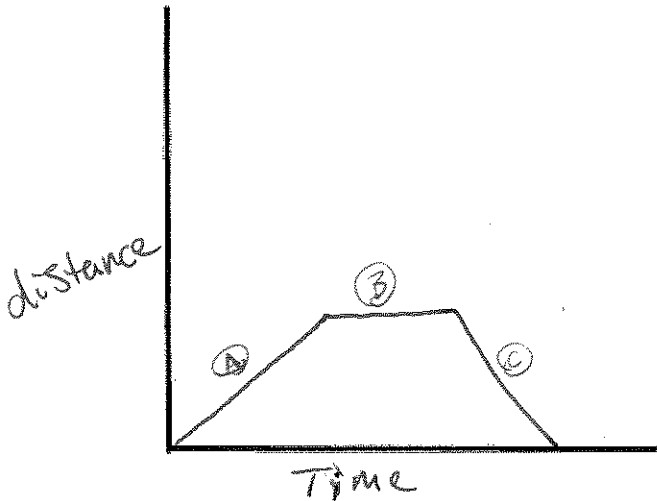
Does not Passes the vertical line test.

M.8.F.5

7. A. Sketch a graph to show your walk from home to the park and back, using time and distance away from home as your variables.

B. Label each axis and Title your graph.

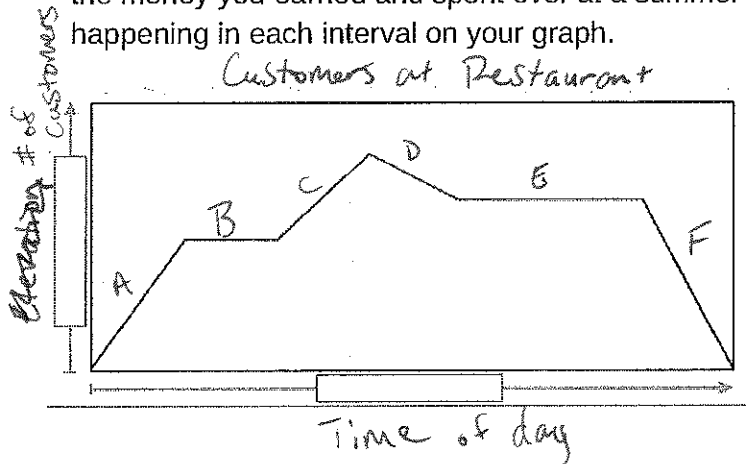
C. Label each part of your graph according to the story you are telling.



- A.) Walking away from home @ constant rate
- B.) Arrive at the park and rest
- C.) Walk back home @ constant rate

8. Choose your own story (the temperature over the course of the day, the number of customers at a business, the money you earned and spent over at a summer job). Title your graph and label your axes. Tell what is happening in each interval on your graph.

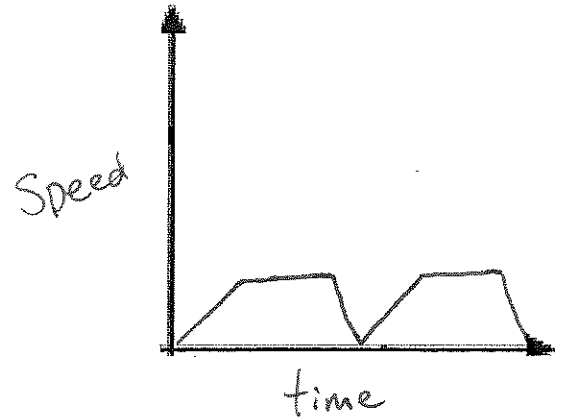
Customers at Restaurant



- A. Customers come in for coffee
- B. No <sup>more</sup> customers visit between bfast and lunch
- C. Lunch rush - many customers fill the restaurant
- D. Some customers leave after lunch
- E. Room stays filled with customers until dinner
- F. All customers leave after dinner

9. M.8.F.5 Sketch a graph representing the following situation:  
Be sure to label your axes!

The speed of a car as it travels from home to work.



10. For each situation below, determine which quantity/variable is independent and which is dependent.

- A. The amount of water in a bathtub and the length of time the water has been running

Independent: Length of time    Dependent: Amount of water  
*water is running*

- B. The money earned and the number of hours worked.

Independent: # of hours worked    Dependent: \$ earned

- C. The temperature outside and the month.

Independent: Month    Dependent: Temperature outside

- D. Someone's age and the year he was born.

Independent: Birth ~~date~~ <sup>year</sup>    Dependent: Age

11. Mrs. Hall has organized some data into the following table.

She is trying to use one column as an input to help her access the customer information.

First Name	Last Name	Gender	Phone Number	Customer ID
Steve	Jones	M	231-4436	100
Michelle	Adams	F	432-6388	101
Tom	Harris	M	228-0333	102
Jule	Adams	F	302-9621	103
Tammi	Nyugen	F	227-1111	104
John	Joseph	M	214-0001	105
Stephanie	Williams	F	432-0033	106
Mark	Jones	M	262-3175	107
Omar	Ramirez	M	316-9932	108
Steve	McIntosh	M	550-8876	109

Would it work to use a customer's first name as the input? Why or why not?

No, there are two Steves.

12. Match each story below with ONE graph.

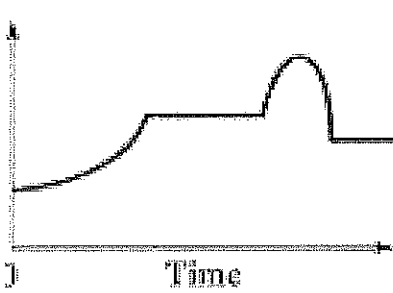
1) Label the axes

2) Explain your reasoning on matching

Story 1: The balance in a checking account over time.

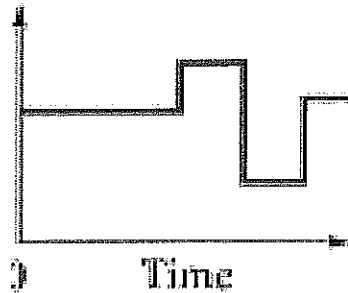
Story 2: Weekend temperature over time.

Story 3: Your heart rate as you exercise.



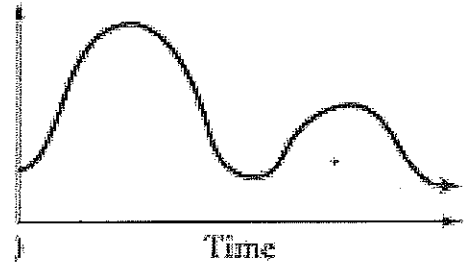
Heart rate during exercise (Story 3)

Your heart rate will increase as you work out and level off. It will "spike" if you increase the intensity and then decrease to your resting H.R.



Balance in checking Acct. (Story 1)

Balance will fluctuate. It will depend on withdrawals and deposits.



Weekend temp (Story 2)

Temp. will rise and fall in the morning/evening. It will also get colder as the weekend progresses in this case.