Study Guide - MT6 Functions

Name__

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



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



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:

RANGE:

FUNCTION? Yes or No (explain)

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:

RANGE:

FUNCTION: Yes or NO (explain)

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

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

Domain:_____ Range:_____ Function? Yes or No (explain): 6. Is the relation below a function or not?



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.

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.



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: _____ Dependent: _____

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

Independent: _____ Dependent: _____

C. The temperature outside and the month.

Independent: _____ Dependent: _____

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

Independent: _____ Dependent: _____

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	М	231-4456	100
Michelle	Adams	F	432-6588	101
Tom	Harris	М	228-0333	102
Julie	Adams	F	302-9821	103
Tammi	Nyugen	F	227-1111	104
John	Joseph	М	214-0001	105
Stephanie	Williams	F	432-0055	106
Mark	Jones	М	262-5175	107
Omar	Ramirez	М	316-9932	108
Steve	McIntosh	М	550-8876	109

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

- 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.

