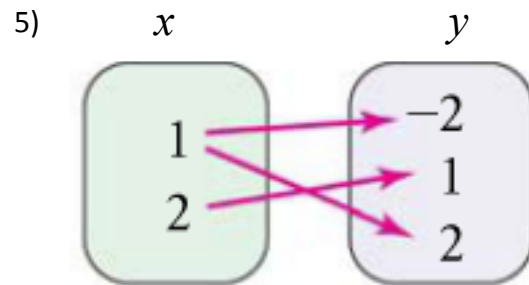
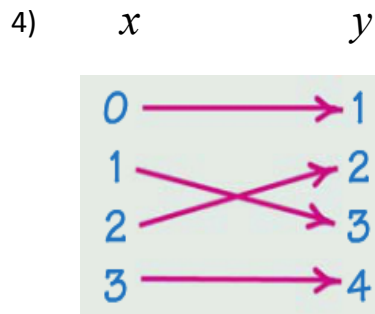
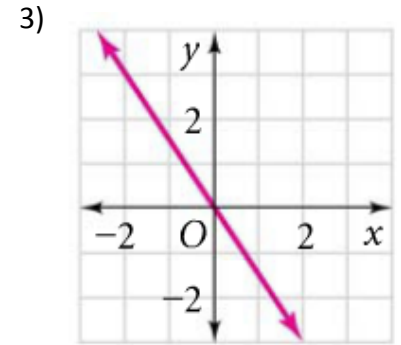
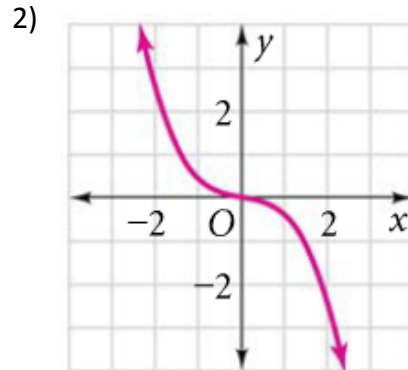
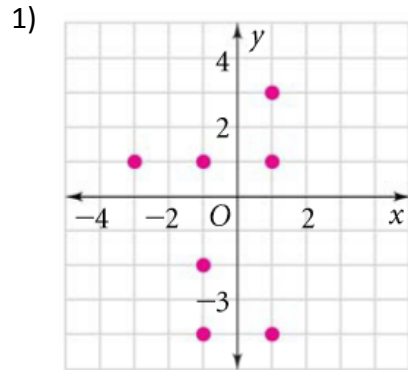


Unit 8: Functions

Day 5 Quiz Study Guide

Directions: Determine if the following relations are functions. If the relations are functions, then determine if the functions are linear or non-linear.



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

7) $\{(-1,1), (0, 1), (2, 1), (3, 1), (4, 1)\}$

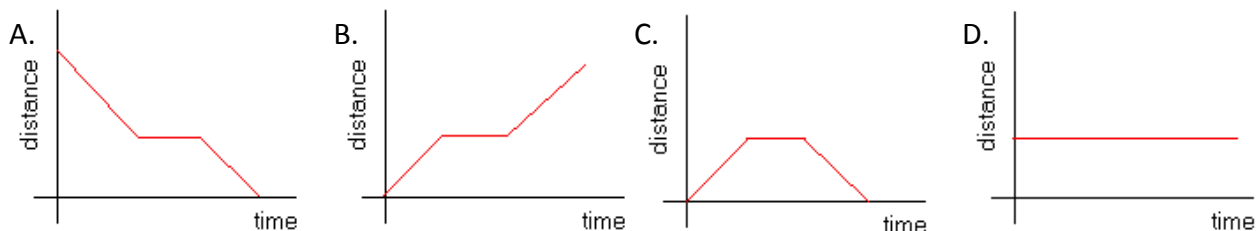
8)

x	y
3	-1
2	-1
-4	0
2	4

9)

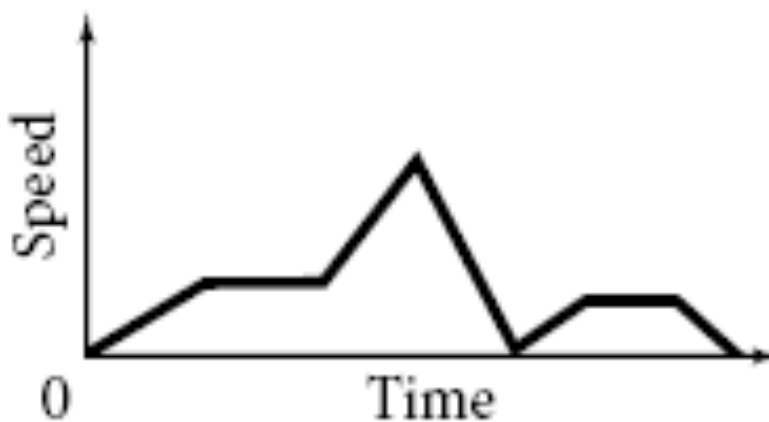
x	y
-5	-5
-3	-3
1	1
2	2

- 10) Peter drove at a constant speed for two hours. He then stopped for an hour to do some shopping and rest. He then drove back home at a constant speed. Which graph best represents the changes in the distance from home as Peter was driving? Circle your answer.



Directions: Label what each part (there are nine) of the graph represents.

- 11) **Trip to School**



Directions: Sketch a graph that represents the follow situation. Make sure to label the axes and each part of the graph.

- 12) One night you to go DiMaio's for dinner and order pizza. Sketch a graph of the temperature of a pizza from the time Antonio makes it fresh for you until you are able to eat it.



Directions: Write a function rule to represent the following situation, then create a table and graph from the function rule you wrote.

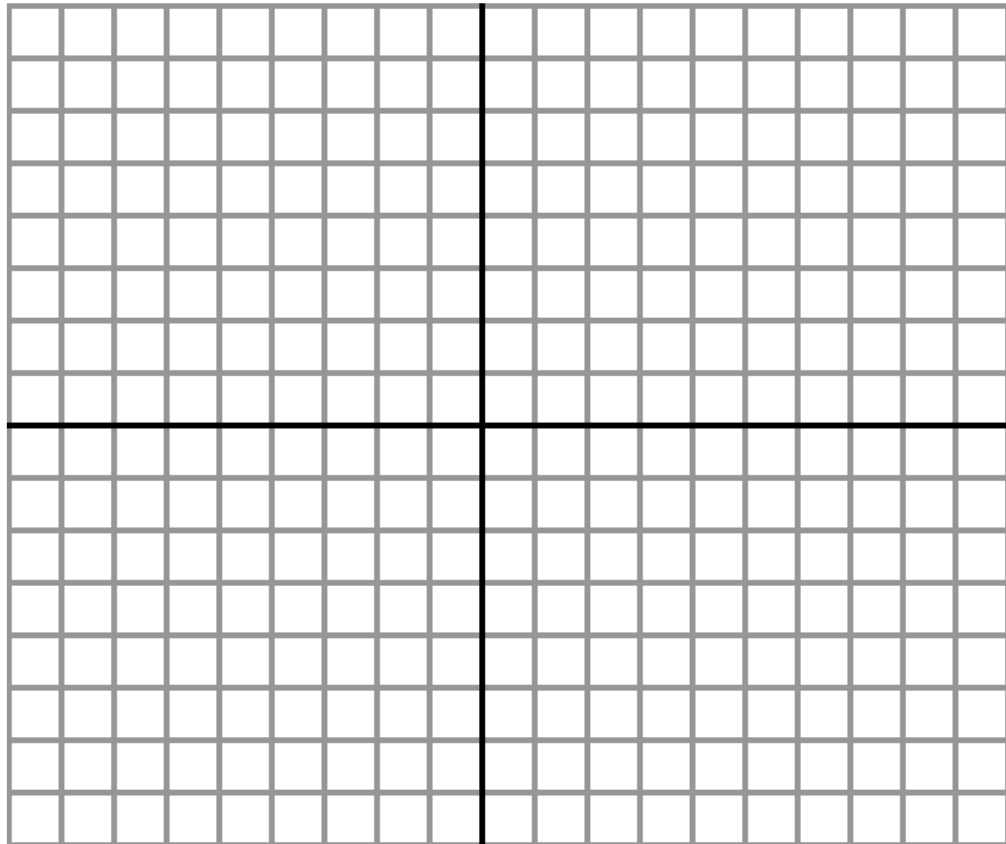
13) Jeff is the new golf pro at Gasser's Driving Range. He spent \$300 on advertising and instructional supplies and is planning to charge \$60 per hour-long lesson that he teaches.

a) Write the function rule that defines his profit as a function of the number of lessons that he teaches.

b) Use the equation you wrote in part b to complete the table.

_____ (x)	0	1	2	3	4
_____ (y)					

c) Graph the line that models this situation by plotting and connecting the points from the table. Make sure to label the axes.



Directions: Use your knowledge of linear functions to compare the following situations.

- 14) The Dairy Swirl, the Custard Shack, and Sadie's Shakes all sell ice cream. Dairy Swirl charges \$3.00 for two scoops of ice cream and then \$0.50 for every topping. The price that the Custard Shack charges for the same product is represented in the table and the price that Sadie's Shakes charges is represented by the graph. If Cooper plans on getting ice cream with four different toppings, which place should he go to buy ice cream? Why?

Dairy Swirl:

Custard Shack:

Number of Toppings (x)	0	1	2	3
Total Cost (\$)	3.5	3.75	4	4.25

Sadie's Shakes:

