_____ Math-3 Essentials _____

Name HW #1-1

1. What are six ways to show a relation between input and output?

2. Which one of the six ways to show a relation, does not provide the actual input and output values?

3. Convert the following table into ordered pairs.

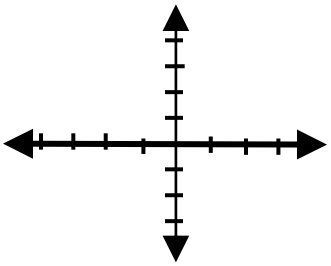
x	5	6	4
y	2	1	2

4. Convert the following table into "*function notation*"

x	2	4	6	8
y	5	4	3	2

5. Graph the following:

x	-1	-3	2	3
f(x)	4	-2	3	-4



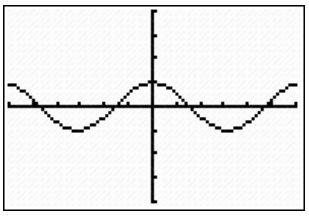
6. Which of the following is a y-intercept?

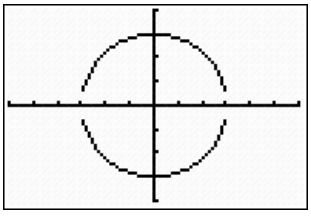
a. (3, 0) b. $f(0) = 4$ c. (0, 5) d. $f(6) = 0$

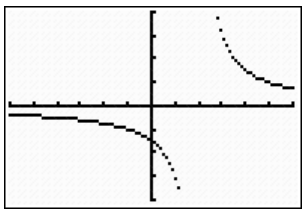
7. Which of the following is "y is a function of x"?

a. $2x + 3y = 4$ b. $3x^2 + 4x + 5 = y$ c. $x = 3y + 4$

8. Which of the following are not functions? If it is not a function, explain why it is not.

a. 

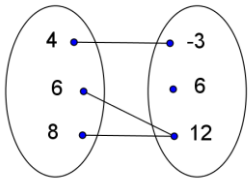
b. 

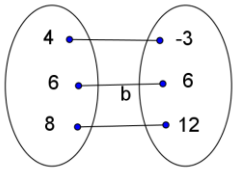
c. 

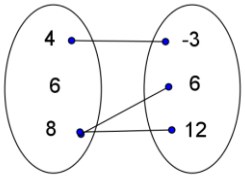
9. Which of the following (given in "set-builder notation") are not functions? If it is not a function, explain why it is not.

b. (x, y) = { (2, 3), (3, 4), (4, 5) } b. (x, y) = { (-1, 5), (7, 3), (-1, 5) } c. (x, y) = { (-6, 8), (9, 4), (-1, 5) }

10. Which of the following are not functions? If it is not a function, explain why it is not.

c. 

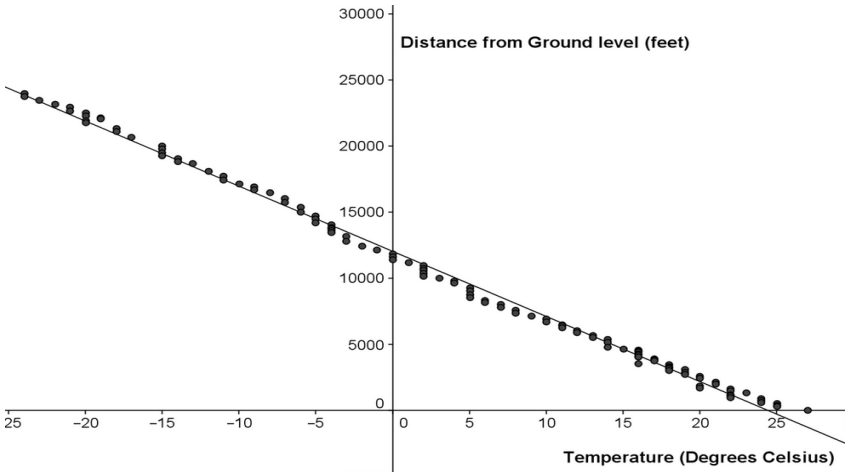
b. 

c. 

11. The graph below is an example of (which one?)

a. temperature as a function of distance from ground level

b. distance from ground level as a function of temperature



12. If you pay a dollar, the shop keeper will <u>randomly</u> give you either a candy bar or a can of soft drink.

a. Is this relation a function or is it just a relation? Explain why

b. What is the input?

c. What is the output/

d. What is the definition of a function?

13. $f(x) = 3x^2 - 4x + 2$

a. Convert the equation into the given table.

x	-2	0	4
f(x)			

b. What is the y-intercept?

c. Does the table represent the complete function? Why or why not?