Name _____

Date _____Pd_____

IDENTIFYING FUNCTIONS

A donut shop has a small vending machine with the items shown.

a. If Nate inputs B2, what will he receive?
b. If Mia inputs A2, what will she receive?
c. If 5 people in a row input B1, what should they each receive?

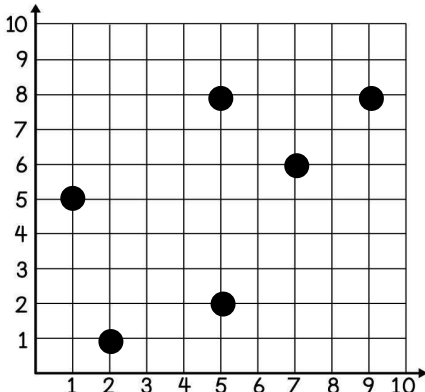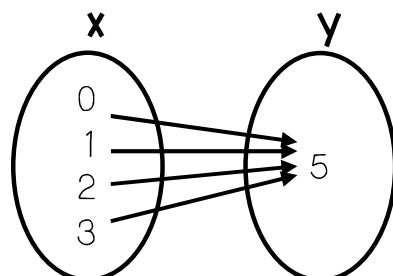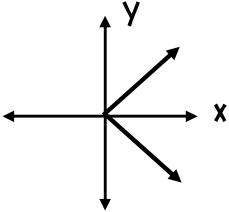|	A	B
1	MILK	CHOC. MILK
2	ORANGE JUICE	APPLE JUICE
3	FRUIT PUNCH	WATER

FUNCTIONS

- A function is a relation or rule that assigns each _____ exactly one _____. Each _____-value is paired with exactly one _____-value.
- A graph that is a function will pass the _____ line test where any _____ line drawn on the graph will pass through only _____ point.
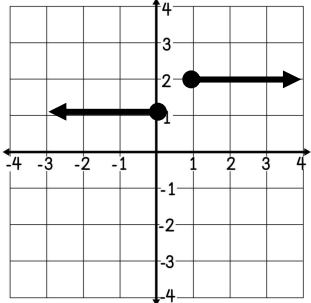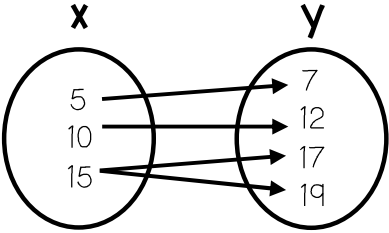
- Would a vending machine like the one shown represent a function? Explain.

- A customer chose A3 and received fruit punch. If the next customer chooses A3 and receives milk, would the vending machine represent a function? Explain.

Determine if each representation shows y as a function of x. Explain your choice.

1.

x	-2	-1	0	1	2
y	7	1	-1	1	7

2.

{(-2, 1), (3, 11), (-4, -3), (-2, 8), (0, 5)}

3.

4.

Determine if each representation is a function by writing "yes" or "no." Justify your answers.

5.	6.	7.
{(3, 7), (4, 7), (5, 7), (6, 7)}		

6.

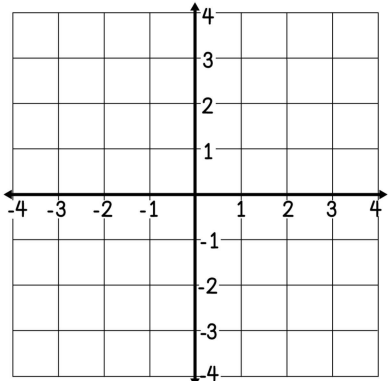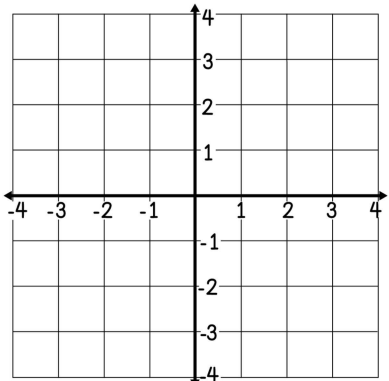| x	-7	-5	-7	5
y	1	3	-1	13

7.

8.

9.

10. The set of ordered pairs shown is missing an x-value.

$$\{(9, -15), (0, 0), (4, 0), (\underline{\quad}, 2)\}$$

a. Give an example of an x-value that would result in y as a function of x.
b. Give an example of an x-value that would not result in y as a function of x.

Create your own examples and non-examples of functions for each representation below.

EXAMPLES	NON-EXAMPLES
{(___ , ___) (___ , ___) (___ , ___)}	{(___ , ___) (___ , ___) (___ , ___)}

x				
y				

x				
y				

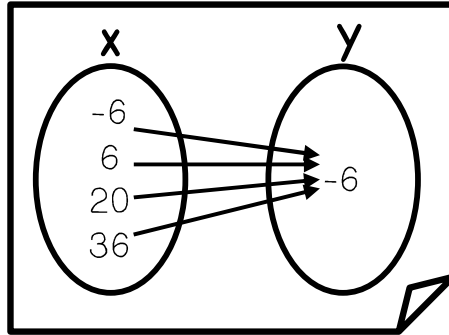Summarize today's lesson:

Name _____

Date _____ Pd _____

IDENTIFYING FUNCTIONS

Students were asked to create a representation of y as a function of x. Circle the names of the students who correctly completed the task. Then, unscramble the underlined letters of the circled names to answer the question at the bottom.
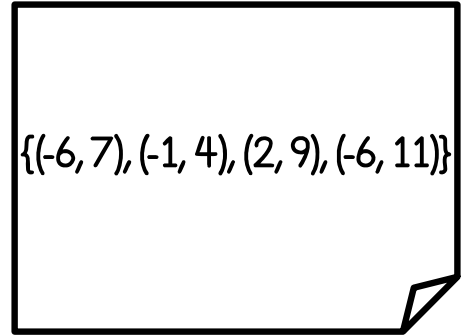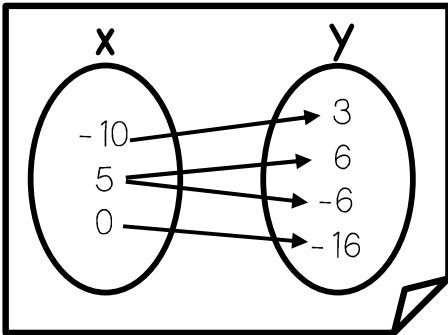
CHAR_L_OTTE

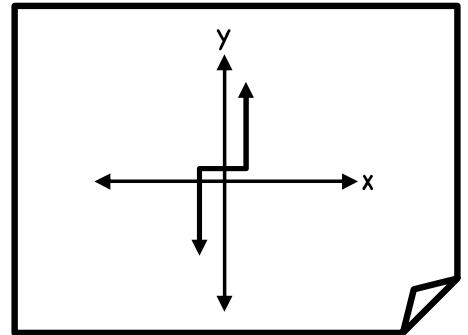### SO_F_IA

DE_S_HAUN

{(-6, 7), (-1, 4), (2, 9), (-6, 11)}
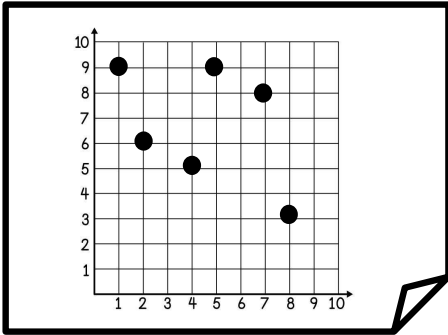
J_A_CE

NA_T_HAN

x	-4	0	5	11
y	-8	-13	-4	14

CO_L_BY

AB_B_Y

ORLAND_O_

{(9,-2), (7, 5), (4,-3), (-9, 6)}
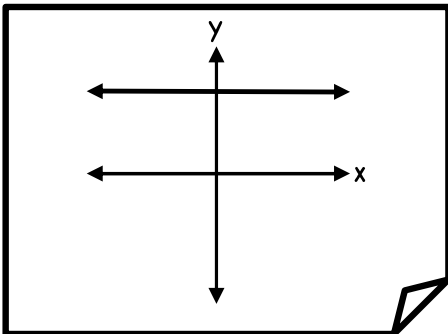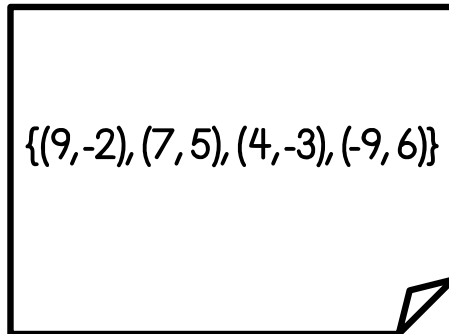
STEPHA_NIE_

x	-4	0	7	-4
y	6	0	-2	-6

WHAT IS THE ONLY NUMBER WHOSE LETTERS ARE IN ALPHABETICAL ORDER?

_____