Station #1

1-Read page 46 from the Algebra textbook.

2-Copy **example #1** in your **composition book.** – diagram & table

3-Create your own geometric representation of a relation or function.

4-Swap examples with your tablemates and have them solve.

Station #2

1-Use the graphing calculator to graph the following set of functions.

2-In your **composition notebook:** For each set of functions write the equations i order from the **greatest** rate of change to the **least** rate of change

3-Do you see a pattern that can help you determine an equations rate of change

Set A	Set B	Set C
$y = \left(\frac{3}{8}\right)x + 2$	$y = 12x - \left(\frac{1}{2}\right)$	$y = 3x$
$y = -7x - 3$	$y = -4x - 6$	$y = \left(-\frac{2}{3}\right)x + 8$
$y = 2x + 5$	$y = \left(\frac{1}{5}\right)x - 3$	$y = 5x - 1$

Station #3

Given $g(x) = \frac{2}{5}x - 1$ and $h(x) = \left(-\frac{1}{2}\right)x + \frac{3}{2}$ solve the following problems in your **composition notebook**:

1. g(0)
2. $h\left(\frac{2}{4}\right)$
3. h(2)
4. g(25)
5. h(-8)
6. g(-1)
7. h(0)
8. $g\left(-\frac{5}{2}\right)$

Station #4

Practice 172 **Worksheets**

1- Graph equations (#1-3) with 3 points(you pick the x-values). Graph #4- your graphing calculator and sketch your results on your **worksheet**
2- Check your graph using the graphing calculator.
3- Find your 3 points on the graph using the trace button.
4- Find 2 more coordinate point to add to your graph by using the trace button on the graphing calculator.
5- Don't forget to complete **4.8 Application Lesson Opener** on the other s

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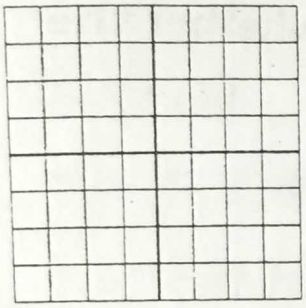
Practice 172

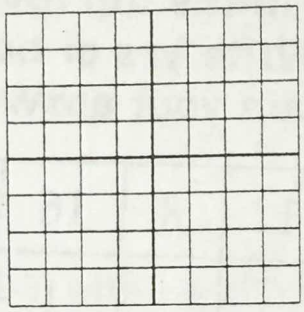
Skills and Applications of Lesson 13-10

Graph each function.

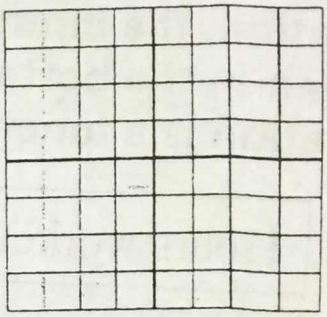
1. $y = \frac{1}{2}x - 1$



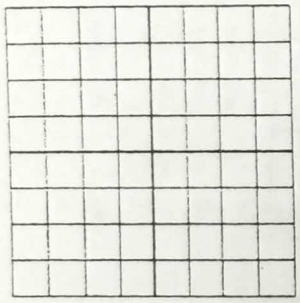
2. $y = -x^2$



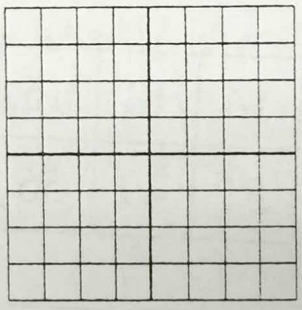
3. $y = \frac{1}{2}x^2 + 1$



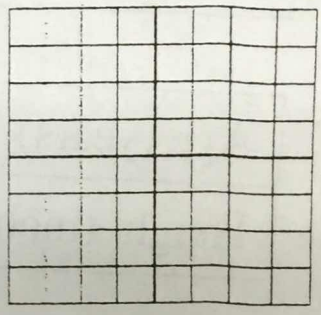
4. $y = |x| + 1$



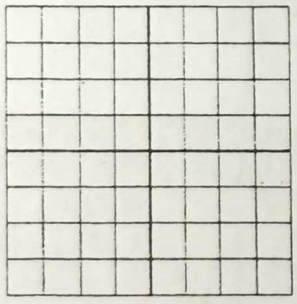
5. $y = |x| - 3$



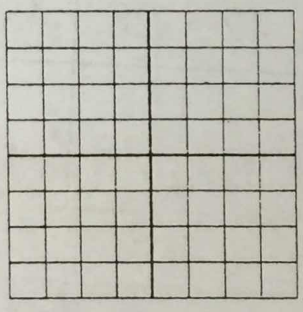
6. $y = -\frac{3}{4}x$



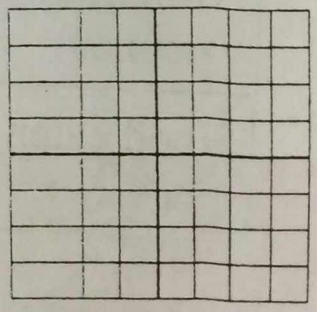
7. $y = (x - 2)^2$



8. $y = |x + 1|$



9. $y = -3x + 1$



LESSON 4.8

NAME _____ DATE _____

a transparency

Application Lesson Opener

For use with pages 256–262

Recall that a function is a relationship between two quantities, the input and output. In a function, there is exactly one output value for a given input value. A relation is any pairing of input and output values. All functions are relations, but not all relations are functions. Four relations are shown below. For each relation, the input is given in the top row and the output is given in the bottom row. Write *yes* or *no* to tell whether the relation is a function. Explain your answer.

1.

Hours worked	10	12	8	16	14
Amount earned (dollars)	70	84	56	112	98

2.

Age (years)	13	14	13	15	14	15
Height (inches)	50	51	49	56	58	54

3.

Weight of dog (pounds)	31	42	28	48	42	35
Food eaten per day (cups)	3	3.5	2.5	4	4	3

4.

Distance (miles)	90	60	150	120	210
Time (hours)	1.5	1	2.5	2	3.5

Station #5 –Function or Not

1- **Function Student Challenges** WS– Decide whether each domain and range will be a relation or a function.
2- **Practice Worksheet** – Decide whether each graph is a relation or a function.

Function Student Challenges

Domain: The students in your class
Range: The number of siblings of each student

Domain: The students in your class
Range: The names of the siblings of each student

Domain: Cities in the United States
Range: The shortest straight-line distance from each city to Washington D.C.

Domain: Cities in the United States
Range: Travel routes to Washington D.C.

Domain: The students in your class
Range: The age of each student

Domain: The families in your neighborhood
Range: The family owned car

Domain: All possible positive amounts of money
Range: Groups of cash that equal each money amount

Domain: All goods (by name) sold in the United States
Range: The price each good is sold for in a given day

Domain: Instantaneous points in time
Range: Fahrenheit temperature at a specific location

Domain: The set of whole numbers
Range: The perfect square of each whole number

Domain: The set of whole numbers
Range: The multiples of each whole number

Domain: All possible pairs of whole numbers
Range: The product of each pair of whole numbers

Domain: All possible sets of three letters
Range: Usable word that can be made from the three letters

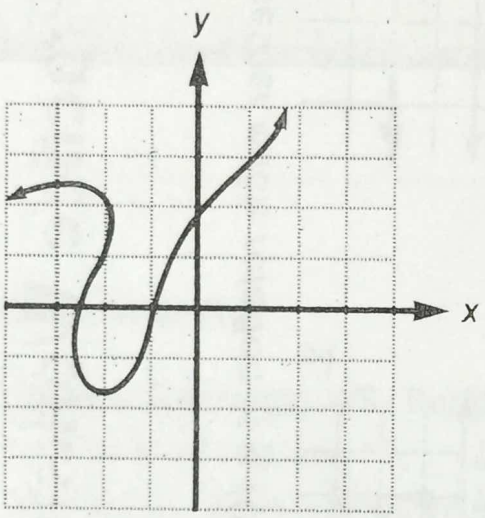
Domain: The letters of the alphabet
Range: The classification of each letter as "vowel" or "consonant"

Domain: The set of real numbers
Range: The symbolic representation of each number

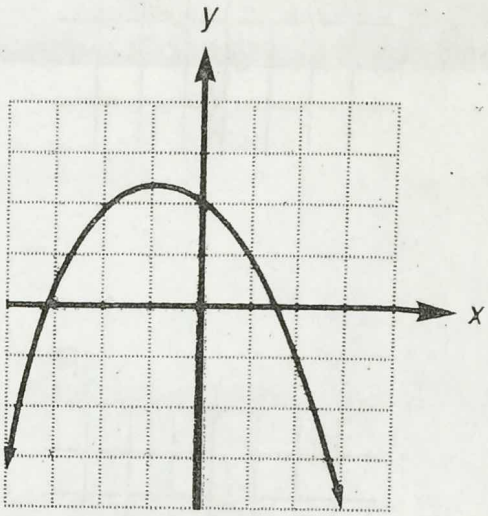
Recognizing Graphs of Functions

Which of the following are graphs of functions?

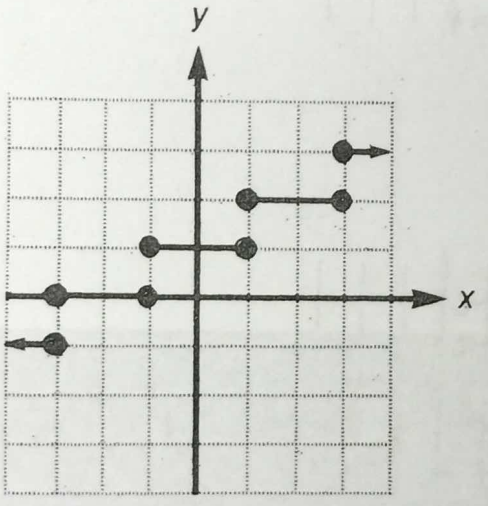
a.



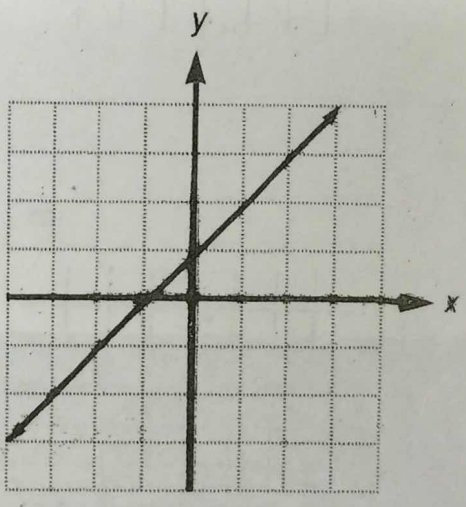
b.



c.



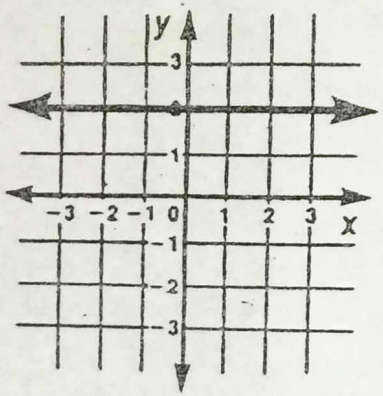
d.

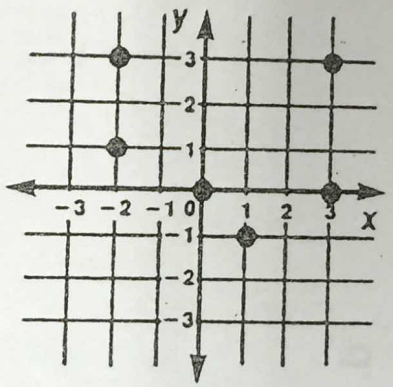


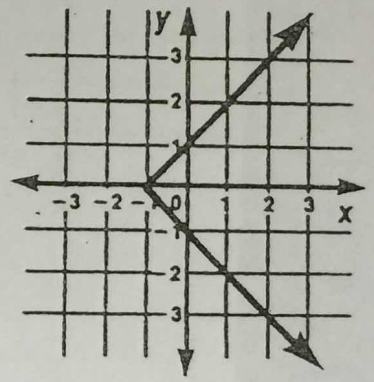
Practice Worksheet

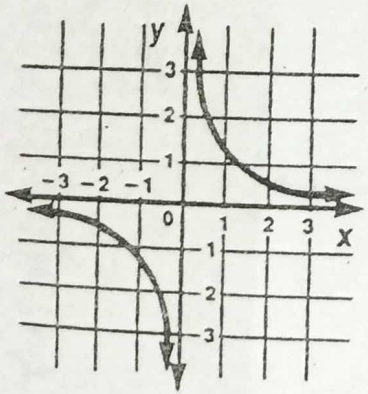
Functions

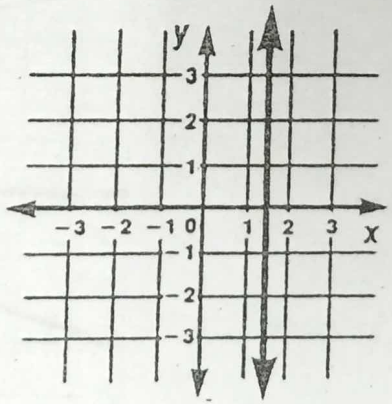
Determine whether each relation is a function.

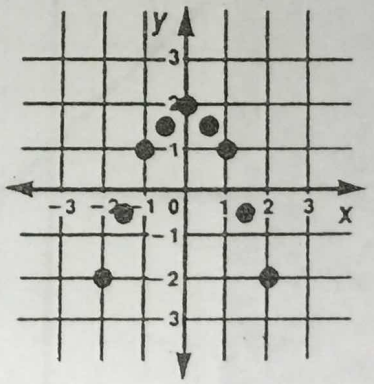
1. 

2. 

3. 

4. 

5. 

6. 

Station #6 – Smartboard Function Review

1- In your **composition notebook**, write down your ANSWERS for each question (#1-10)

2- Write down any information you want to remember when you're studying!