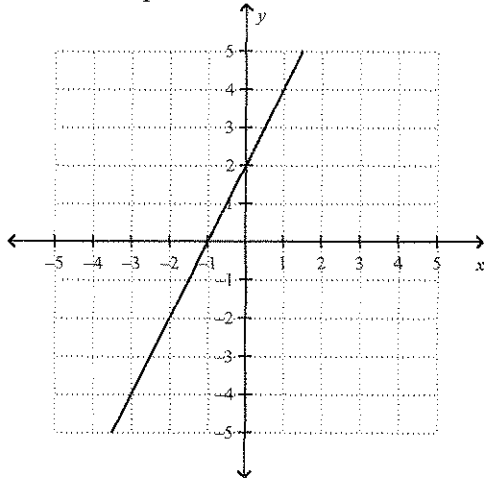


Algebra---2nd 9 Weeks Test Review

1. Evaluate $f(x) = 2x^2 - 2$ for $x = 3$.
2. Find the slope of the line.



3. You have test scores of 85, 99, and 77. What do you need to score on your next test so that you have an average test score of 90?

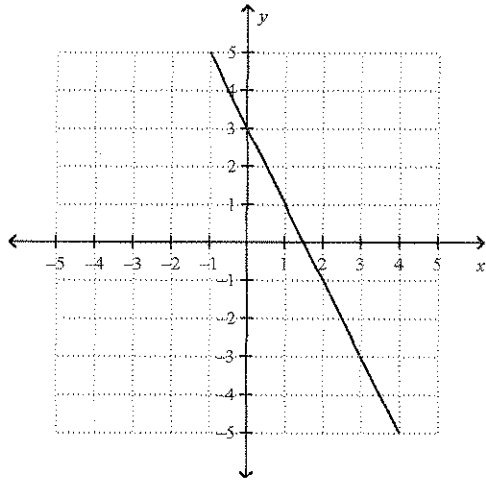
Solve the proportion.

4. $\frac{x-8}{5x} = \frac{2}{4}$

5. $\frac{7}{5} = \frac{6}{x}$

6. Of the first 10 students to choose a candy bar, 2 chose Snickers and 5 chose M&M's. Alan is the next to choose his candy. Based on this information, what is the probability that he chooses neither Snickers nor M&M's?
7. Shelly scored an average of 15 points a game in a 3-game tournament. She scored 13 points and 24 points in the first two games. How many points did she score in the 3rd game?

8. Look at the line graphed below.

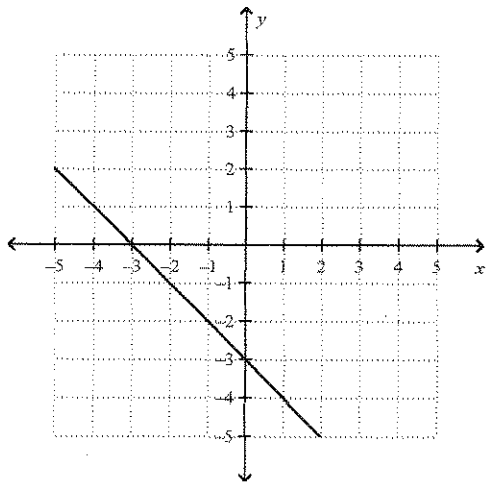


What is the value for $f(3)$?

9. The earnings (E) a child makes selling c cups of lemonade is given by the equation $E = 10c - 10$.

For what value of c is the child's earnings equal to 0?

10. Look at the line graphed below.



What is the value for y when x is 1?

11. Know the difference between independent and dependent variables.
Independent is the value you put into the equation (x) to calculate total (y).
For example, if you buy CD's, you would call the number of CD's the independent variable (x), and the cost would be the dependent variable (y)---since the cost depends on the number of CD's you buy!!!

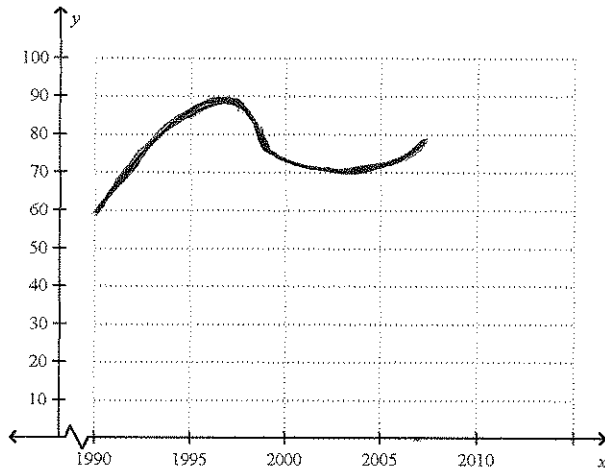
12. Look at the set of ordered pairs below.

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

Which set of numbers represents the range?

Which set of numbers represents the domain?

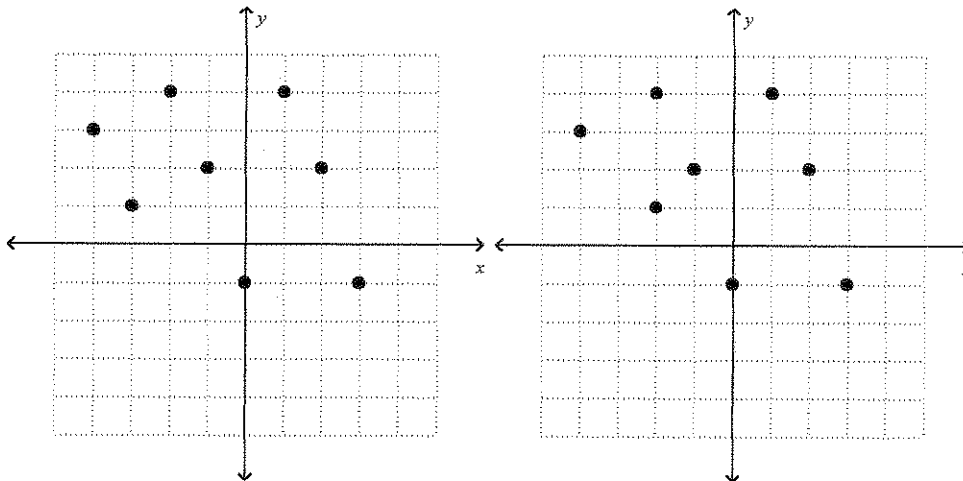
13. The graph below shows the average test scores from the years 1990 to 2007.



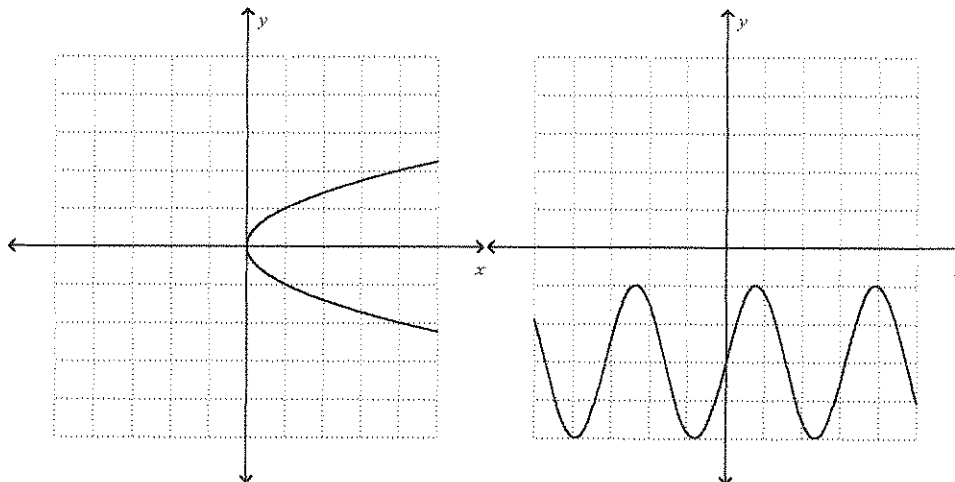
What are the domain and range of the data shown on the graph?

Determine whether the relation is a function. Explain.

14.



15.



Is the relationship shown by the data linear? If so, model the data with an equation.

16. The table below represents a linear relationship between x and y .

x	y
-4	9
2	-3
5	-9
9	-17

What is the slope of the line?

17. The table below represents a linear relationship between x and y .

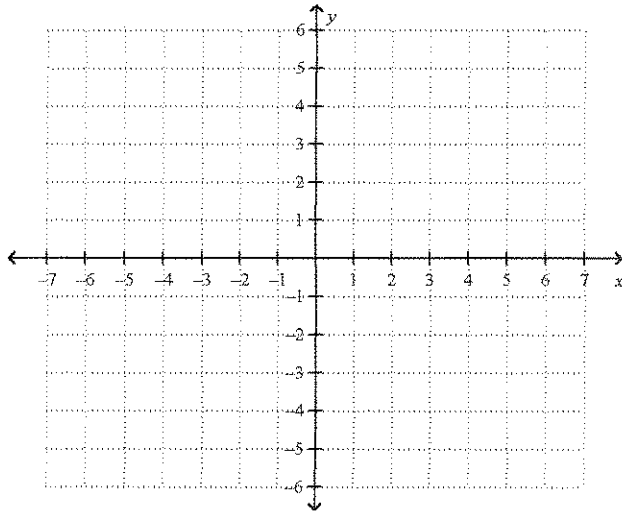
x	y
-1	4
3	6
5	7
11	10

What is the slope of the line?

18. What is the slope of the line that passes through the points $(-2, 5)$ and $(3, 8)$?

19. We are going to have a pizza party!! We will order 10% more slices than three times the number of students in class. There are 20 students in class. How many slices will we order?

20. Draw the graph for a line with slope of 2 that passes through the point (3,4).



21. For the following numbers:

130, 110, 140, 170, 230, 225, 140, 120, 117

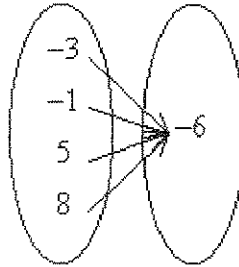
if the underlined number 140 is changed to 105, how would the mean, median, and mode of this data change?

- a. decrease mean, and mode, increase median
- b. decrease mean, median, eliminate mode
- c. increase mean, median, and mode
- d. decrease mean, median, and mode

22. Identify the mapping diagram that represents the relation and determine whether the relation is a function.

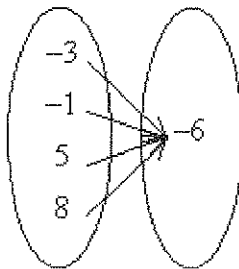
$$\{(-3, -6), (-1, -6), (5, -6), (8, -6)\}$$

a.



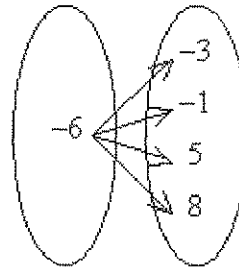
The relation is not a function.

b.



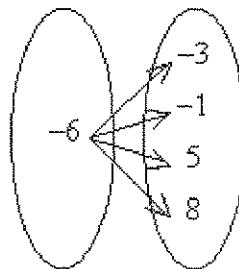
The relation is a function.

c.



The relation is a function.

d.



The relation is not a function.

23. Identify the mapping diagram that represents the relation and determine whether the relation is a function.

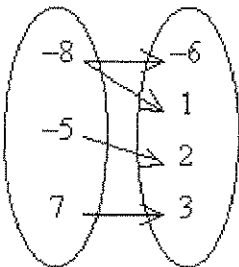
$$\{(-8, -6), (-5, 2), (-8, 1), (7, 3)\}$$

a. x

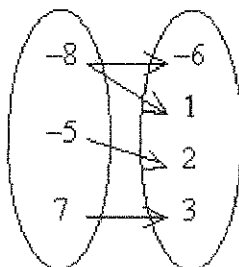
c. x

b.

d.



The relation is a function.



The relation is not a function.