Chapters 4 & 6 Review (Pt 2)

In your own words, describe what a function is? How is it different from other relationships?

1) a) What variable represents the input in a function?

b) What are two other names for the input?

2) a) What variable represents the output in a function?

b) What are two other names for the output?

Tell whether the pairing is a function.

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

4) $\{(-1, 1), (7, 2), (8, 5)\}$

5) $\{(0, -5), (2, -1), (9, 7)\}$

Determine whether the relation is a function.

6)

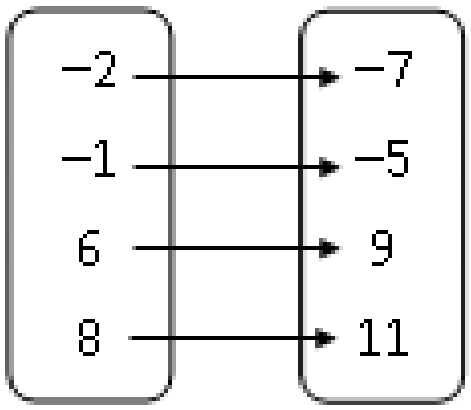
x	2	3	4	5
y	4	7	10	13

7)

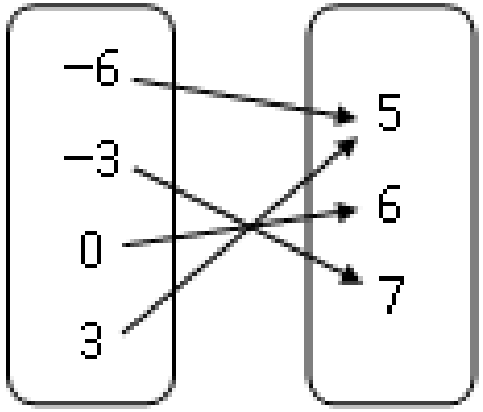
x	3	4	3	2
y	-2	3	2	4

List the ordered pairs shown in the mapping diagram.

8)



9)



Writing an Equation of Line from Two Points

Step 1) Find the slope between the two points
Step 2) Plug the slope into slope-intercept form
Step 3) Find the y-int. using one of the two points

Example

10) Write an equation of the line that passes through the points (2, -1), (0, 6).

Writing an Equation of Line from Two Points

Step 1) Find the slope between the two points
Step 2) Plug the slope into slope-intercept form
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Example

11) Write an equation of the line that passes through the points (3, -1), (0, -4).

Example

$$y - y_1 = m(x - x_1)$$

12) Write an equation in point-slope form of the line that passes through the point (-2,4) with a slope of 3.

Example

$$y - y_1 = m(x - x_1)$$

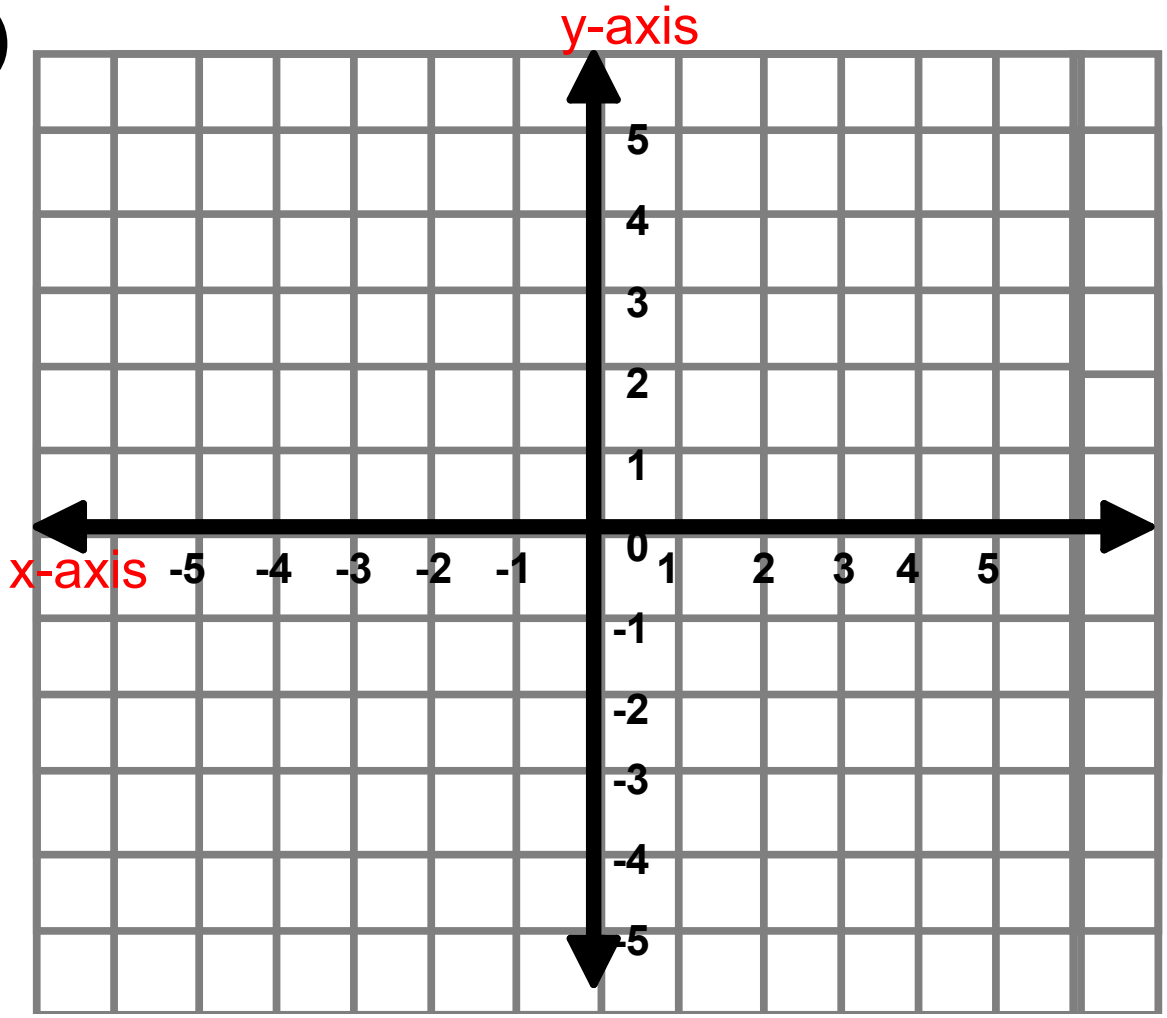
13) Write an equation in point-slope form of the line that passes through the point (5,-2) with a slope of -4.

Example

$$y - y_1 = m(x - x_1)$$

14) Graph the equation

$$y + 2 = \frac{2}{3}(x - 3)$$



Practice

15) Write an equation of the line that passes through the points (4, -3), (3, -6).

Translating Word Problems into Slope-Intercept Form

16) For babysitting, Nicole charges a flat fee of $3, plus $5 per hour. Write an equation for the cost, *y,* after *x* hours of babysitting.

17) A canoe rental service charges a $20 transportation fee and $30 dollars an hour to rent a canoe. Write and graph an equation representing the cost, *y,* of renting a canoe for *x* hours.

Translating Word Problems into Standard Form

18) You have 50 dollars to spend on breakfast. The number of *x* bagels cost $3 each and the number of y donuts cost $2 each.

What is the total that is given? _____

What do the variables stand for:

x=_____, y= _____

a. Write an equation that describes how many bagels and donuts you can buy for $50.