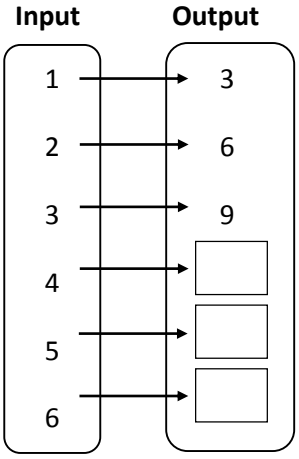
Name: _____ Period: _____

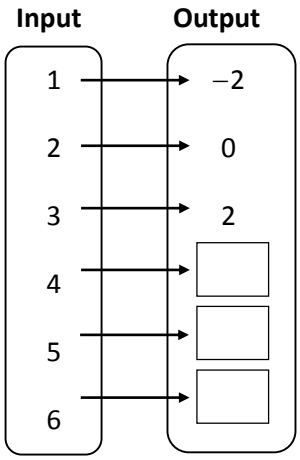
6.1-6.3 – Review

Describe the pattern in the mapping diagram AND complete the diagram.

1)

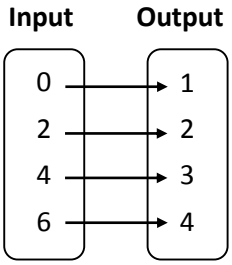


2)

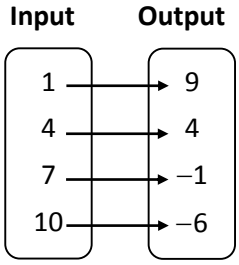


List the ordered pairs shown in the mapping diagram.

3)



4)



Draw a mapping diagram of the set of ordered pairs.

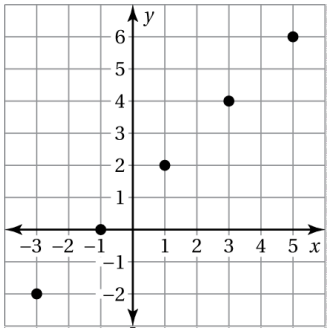
5) $(1, 2), (3, 5), (6, 9), (10, 12)$

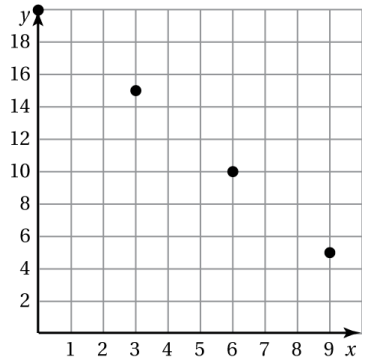
6) $(-2, 7), (0, 5), (5, 8), (4, 9)$

7) $(0, -3), (4, 12), (6, 13), (7, 0)$

8) $(1, 0), (3, 0), (5, 4), (7, 4), (9, 4)$

Draw a mapping diagram for the graph. **Then** describe the pattern of inputs and outputs.

9) 

10) 

11) The table shows the number of tickets purchased and the total cost.

Tickets	Total Cost
1	$14
2	$24
3	$30
4	$32

a) Use the table to draw a mapping diagram.

b) Is the relation a function? Explain.

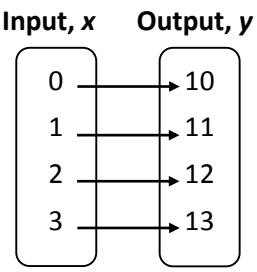
c) Describe the pattern. How does the cost per ticket change as you buy more tickets?

d) Based on this pattern, how much would you expect to pay for 5 tickets?

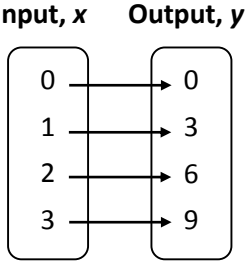
e) Compare the costs for 3 tickets and 5 tickets. What can you suggest?

Write an equation that describes the function.

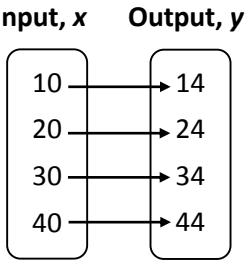
12)



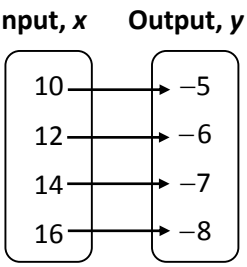
13)



14)



15)



Write a function rule (equation) for the statement.

16) The output is eight less than the input. _____

17) The output is double the input. _____

18) The output is five times the input. _____

19) The output is two less than the input. _____

Find the value of y for the given value of x.

20) $y = 3x - 4;\ x = 2$

21) $y = \frac{x}{3} - 1;\ x = -6$

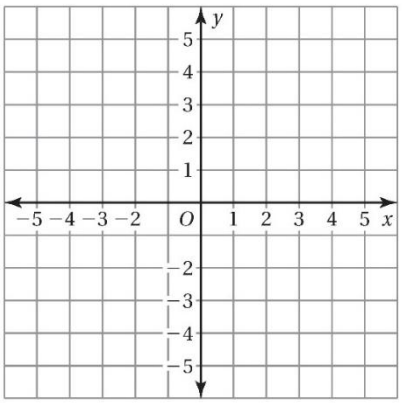
Find the value of x for the given value of y.

22) $y = 6x - 4;\ y = 20$

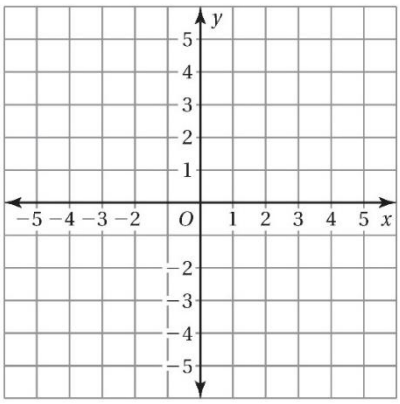
23) $y = \frac{x}{2} + 3;\ y = 1$

Graph the function. (Clue: create a input-output table)

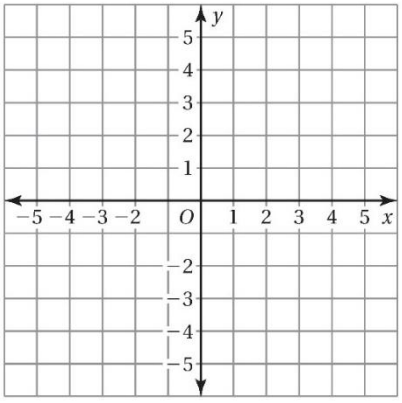
24) $y = x - 4$



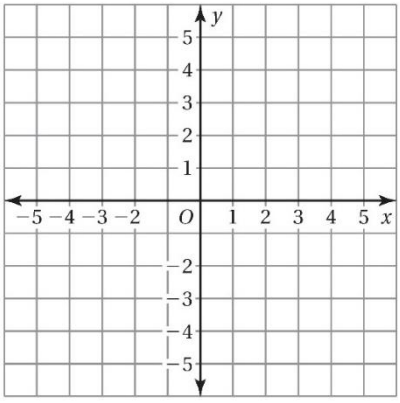
25) $y = 2x + 3$



26) $y = -3x + 1$



27) $y = -x + 3$



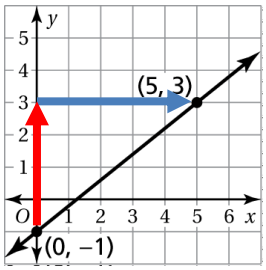
In your own words, what is the rise of the slope of a line?

28) In your own words, what is the rise of the slope of a line?

29) In your own words, what is the run of the slope of a line?

30) What is the ratio that describes what slope is?

For the following, identify the (a) rise, (b) run, (c) slope, and (d) *y*-intercept of each of the lines

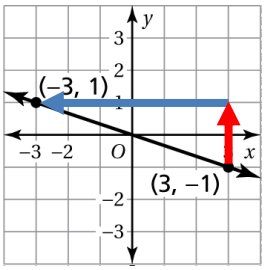
31) 

a) _____

b) _____

c) _____

d) _____

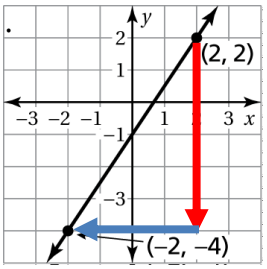
32) 

a) _____

b) _____

c) _____

d) _____

. 

a) _____

b) _____

c) _____

d) _____