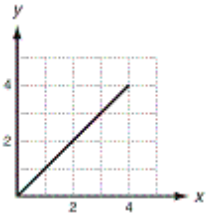
Study Guide -- Functions

Short Answer. Show your work!

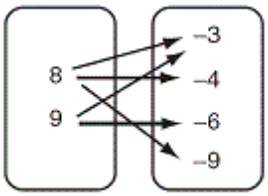
1. Give the domain and range of the relation.

x	*y*
4	11
6	13
2	5
-5	-2

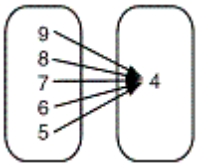
2. Give the domain and range of the relation.



3. Tell whether the relation is a function.



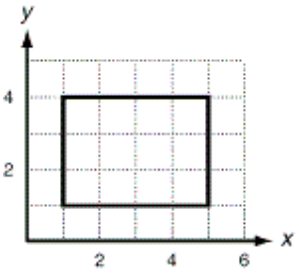
4. Give the domain and range of the relation.



5. Give the domain and range of the relation. Tell whether the relation is a function.

x	y
-1	-2
0	-7
1	-12
2	-17

6. Give the domain and range of the relation. Tell whether the relation is a function.



7. Give the domain and range of the relation. Tell whether the relation is a function.
{(-3,0), (7,-5), (-7,0), (3,-5)}

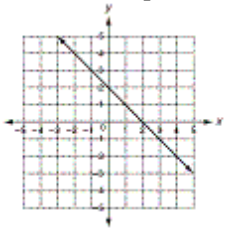
8. Determine a relationship between the *x*- and *y*-values. Write an equation.

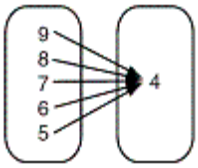
x	1	2	3	4
y	6	7	8	9

9. Determine a relationship between the *x*- and *y*-values. Write an equation.

x	2	4	6	8
y	7	11	15	19

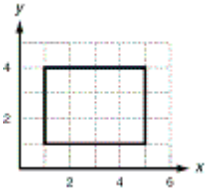
10. Circle the representation that is not a function.

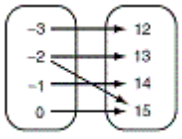




y = x + 3 {(-5,0), (0,5), (5,10), (0,15)}

11. Circle the representation that is a function.





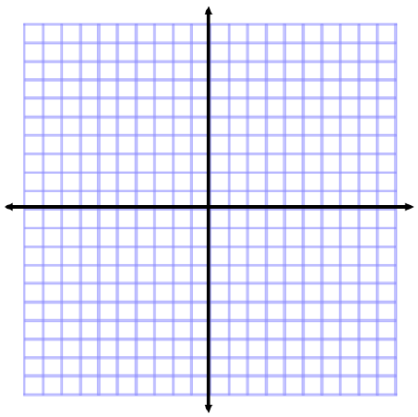
x	*y*
8	8
6	6
4	4
2	6
0	8

{(1,1), (2,2), (3,3), (1,4)}

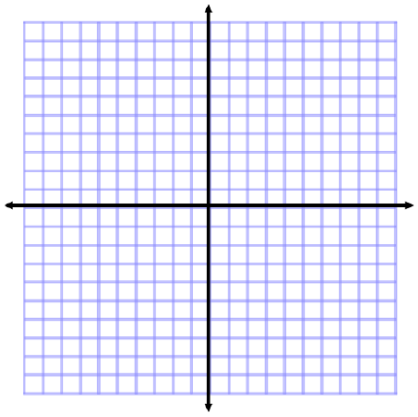
12. Make a table of values that describes the equation $y = 2x + 1$.

13. Make a table of values that describes the equation $y = -5x + 4$.

14. Graph the function $y = -x + 2$.



15. Graph the function $y = 3x - 2$.



16.

Represent the following pattern task with a picture, table, words, equation, and as a graph.

Picture:

Stage 0 **Stage 1** **Stage 2** **Stage 3**
Stage 4

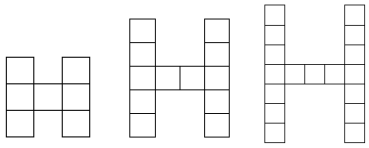


Table:

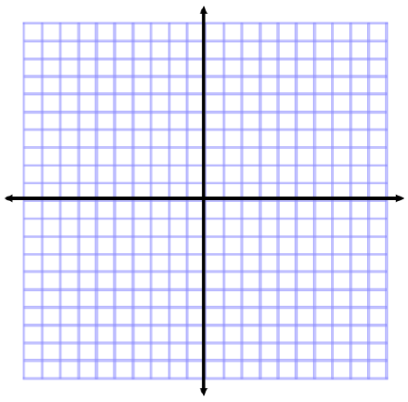
Stage #	Number of Tiles
0	
1	
2	
3	
4	
5	

Words:

How many did you start with?
How many did you add EACH time?

Equation: $y =$ ____ $x +$ ____

Graph:



Study Guide -- Functions
Answer Section

SHORT ANSWER

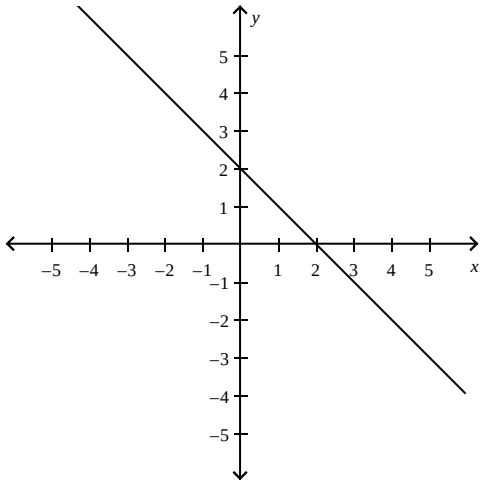
1. Domain {-5, 2, 4, 6}
   Range {-2, 5, 11, 13}
2. Domain $0 \leq x \leq 4$

   Range $0 \leq \psi \leq 4$
3. not a function
4. Domain {5,6,7,8,9}
   Range {4}
5. Domain {-1,0,1,2}
   Range {-17,-12,-7,-2}
   function
6. Domain $1 \leq x \leq 5$

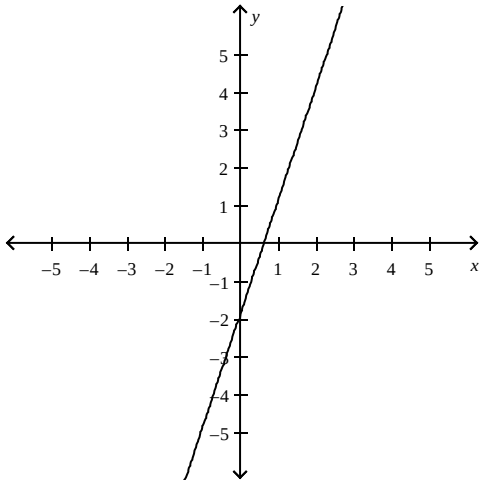
   Range $1 \leq y \leq 4$

   not a function
7. Domain {-7,-3,3,7}
   Range {-5,0}
   function
8. y=x+5
9. y = 2x+3
10. {(-5,0), (0,5), (5,10), (0,15)}
11. | x | y |
    |---|---|
    | 8 | 8 |
    | 6 | 6 |
    | 4 | 4 |
    | 2 | 6 |
    | 0 | 8 |
12. | x | y |
    |---|---|
    | 0 | 1 |
    | 1 | 3 |
    | 2 | 5 |
13. | x | y |
    |---|---|
    | 0 | 4 |
    | 1 | -1 |
    | 2 | -6 |

14.



15.



16. y= 4x + 3