Module 3 Lesson 3 Assignment Name:_____

Fill in the table of values for each of the linear functions. Then circle the point of intersection of the two lines in each table.

1) $f(x) = 3x - 5$

x	$f(x)$
0	
1	
2	
3	
4	

$g(x) = x + 1$

x	$g(x)$
0	
1	
2	
3	
4	

2) $f(x) = x + 2$

x	$f(x)$
0	
1	
2	
3	
4	

$g(x) = 2x$

x	$g(x)$
0	
1	
2	
3	
4	

3) $f(x) = 3x - 4$

x	$f(x)$
1	
2	
3	
4	
5	

$g(x) = -2x + 6$

x	$g(x)$
1	
2	
3	
4	
5	

4) $f(x) = 4x - 9$

x	$f(x)$
1	
2	
3	
4	
5	

$g(x) = 2x + 1$

x	$g(x)$
1	
2	
3	
4	
5	

Determine if the statement is true or false. If it is false, explain why.

5) All linear functions are increasing.

6) Exponential functions have a domain that includes all real numbers.

7) The range for exponential functions includes all real numbers.

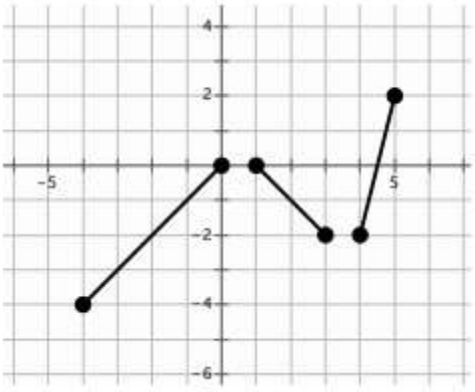
8) All linear relationships are functions with a domain and range containing all real numbers.

9) Geometric sequences have a domain that includes all integers.

10) Arithmetic sequences are an example of linear functions.

For each graph state the domain and range of the function using interval notation. Then determine if the graph is continuous, discrete or discontinuous.

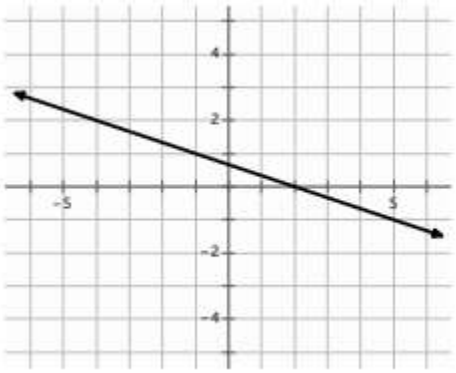
11) Domain:



Range:

Circle One:
Continuous Discrete Discontinuous

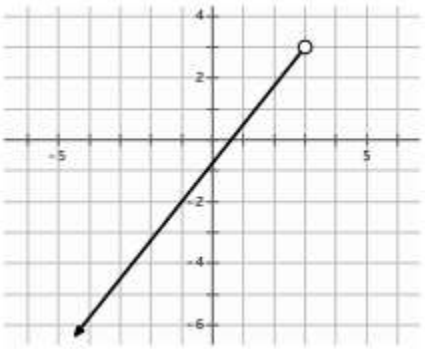
12) Domain:



Range:

Circle One:
Continuous Discrete Discontinuous

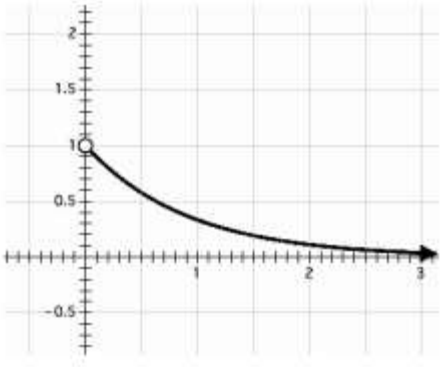
13) Domain:



Range:

Circle One:
Continuous Discrete Discontinuous

14) Domain:



Range:

Circle One:
Continuous Discrete Discontinuous

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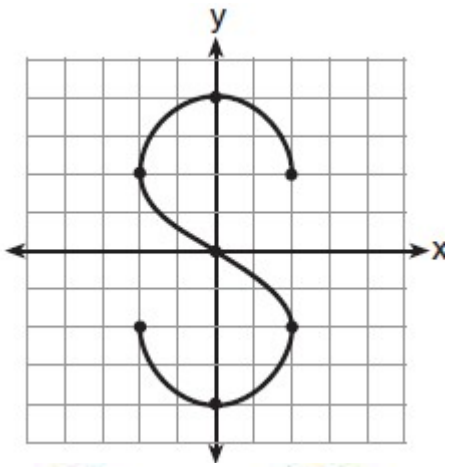
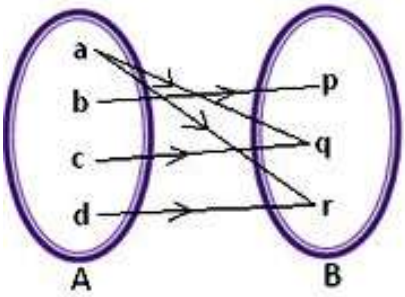
For each relation, determine whether it represents a function. Write yes or no.

15)



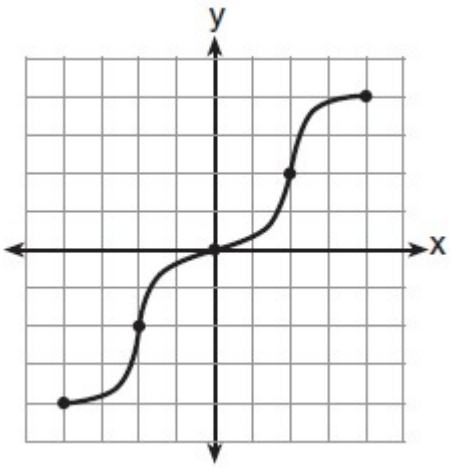
16)



17)

x	y
1	2
1	3
1	4
1	5

18)



19)

x	y
–2	–4
0	2
2	4
4	6

20)