

READY, SET, GO!

Name _____

Period _____

Date _____

READY

Topic: Find the point of intersection for two lines by looking at the table.

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	-5
1	-2
2	1
3	4
4	7

$g(x) = x + 1$

x	$g(x)$
0	1
1	2
2	3
3	4
4	5

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

x	$f(x)$
0	2
1	3
2	4
3	5
4	6

$g(x) = 2x$

x	$g(x)$
0	0
1	2
2	4
3	6
4	8

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

x	$f(x)$
1	-1
2	2
3	5
4	8
5	11

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

x	$g(x)$
1	4
2	2
3	0
4	-2
5	-4

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

x	$f(x)$
0	-9
1	-5
2	-1
3	3
4	7
5	11

$g(x) = 2x + 1$

x	$g(x)$
0	1
1	3
2	5
3	7
4	9
5	11

SET

Topic: Attributes of linear and exponential functions.

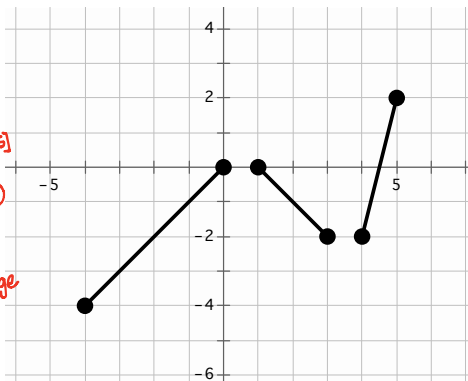
Determine if the statement is true or false. If it is false, explain why.

5. All linear functions are increasing. *false, consider $f(x) = -2x$*
6. Arithmetic sequences are an example of linear functions. *True*
7. Exponential functions have a domain that includes all real numbers. *false, Geometric Sequences*
8. Geometric sequences have a domain that includes all integers. *False, they have the domain of natural numbers*
9. The range for an exponential function includes all real numbers. *false, only if it is continuous.*
10. All linear relationships are functions with a domain and range containing all real numbers. *false, consider Arithmetic Sequences*

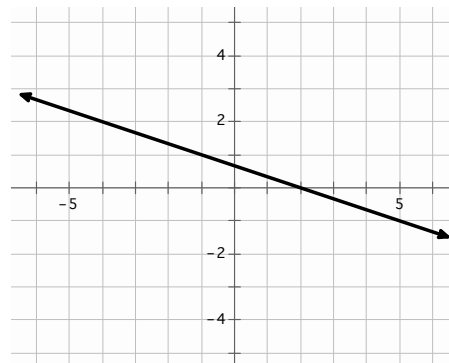
GO

Topic: Determine the domain of a function from a graphical representation.
 For each graph state the domain of the function. Use interval notation.

11. *Discontinuous
 inc: $[-4, 0] [4, 5]$
 dec: $[0, 3]$
 Constant: none
 Domain: $[-4, 0] [0, 3] [4, 5]$
 Range: $[-4, 2]$
 Minimum point: $(-4, -4)$
 Maximum point: $(5, 2)$
 x int: $(0, 0) (1, 0) (4, 0)$
 y int: $(0, 0)$
 Constant Rate of change:
 E $[-4, 0] [1, 3] [4, 5]$*

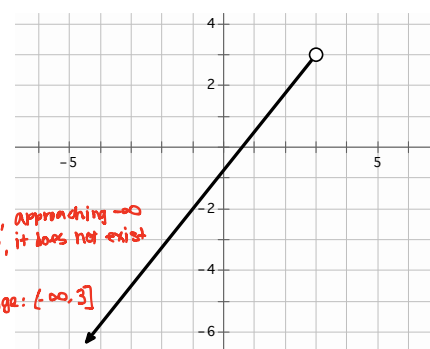


12.

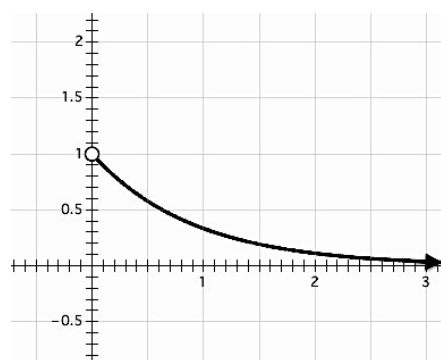


*Continuous
 inc: none
 dec: $(-\infty, \infty)$
 Constant: none
 Domain: $(-\infty, \infty)$
 Range: $(-\infty, \infty)$
 Minimum point: none, approaching $-\infty$
 Maximum point: none, approaching ∞
 x int: $(2, 0)$
 y int: $(0, 0)$
 Constant Rate of change: $(-\infty, \infty)$*

13. *Continuous
 inc: $(-\infty, 3)$
 dec: none
 Constant: none
 Domain: $(-\infty, 3)$
 Range: $(-\infty, 3)$
 Minimum point: none, approaching $-\infty$
 Maximum point: none, it does not exist
 x int: $(-1.5, 0)$
 y int: $(0, -0.9)$
 Constant rate of change: $(-\infty, 3)$*



14.



*Continuous
 inc: none
 dec: $(0, \infty)$
 Constant: none
 Domain: $(0, \infty)$
 Range: $(0, 1)$
 Minimum point: none, approaching 0
 Maximum point: none, does not exist
 x int: none
 y int: none - does not exist
 Constant Rate of change: none*