

For 1-3, complete the tables below for the given function.

1. $f = \{(0, 3), (-2, 1), (2, 5)\}$

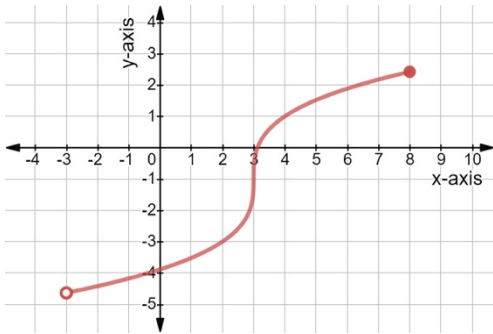
x	f(x)
-2	
0	
2	

2.

$$h(x) = \sqrt{2x + 1}$$

x	f(x)
0	
1.5	
4	

3.



x	f(x)
-3	
2	
8	

For 4-7, complete the tables below for the given function f(x) and g(x) tables

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

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

4.

x	f(x + 2)
-4	
-2	
1	

5.

x	g(-2x)
-1	
1	
2	

6.

x	$f(g(x))$
-1	
1	
2	

7.

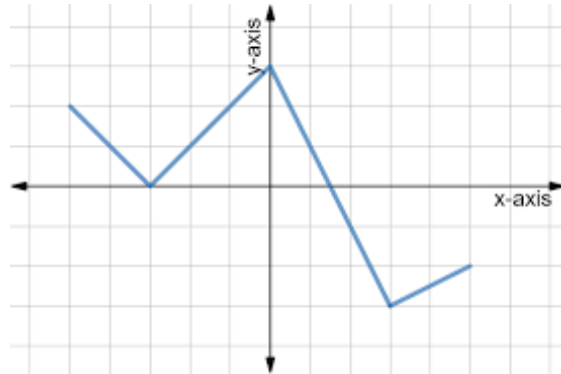
x	$g(f(x))$
1	
2	
3	

On 8-9, find the domain and range of the graph, state whether the domain is discrete or continuous, and decide if the graph represents a function.

8.

X	Y
-2	2
0	7
2	7
4	13
6	14

9.



Domain: _____

Domain: _____

Range: _____

Range: _____

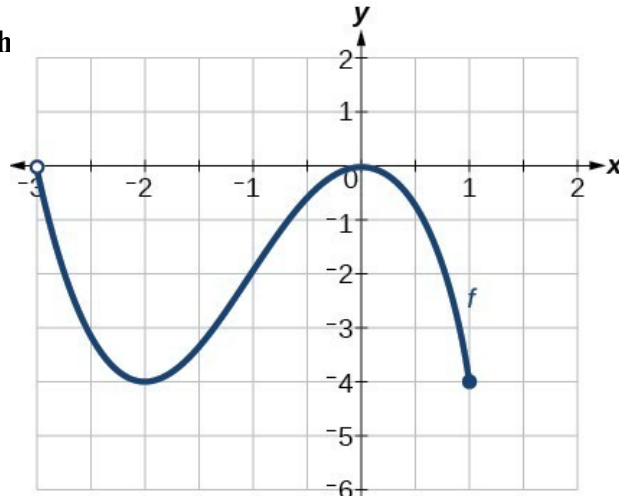
Is it a function? _____

Is it a function? _____

Discrete – or – Continuous

Discrete – or – Continuous

10. Find each feature for the graph



Domain: _____

Negative: _____

Range: _____

x-intercept(s): _____

Increasing: _____

y-intercept (s): _____

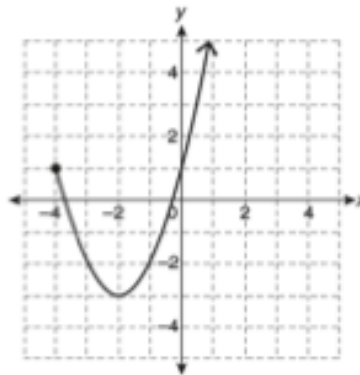
Decreasing: _____

Absolute Max Value: _____

Positive: _____

Absolute Min Value: _____

11. Find each feature for the graph



Domain: _____

Negative: _____

Range: _____

x-intercept(s): _____

Increasing: _____

y-intercept (s): _____

Decreasing: _____

Absolute Max Value: _____

Positive: _____

Absolute Min Value: _____

12. Find the average rate of change over the intervals for the function, $h(x)$.

$$h(x) = 4x - 1$$

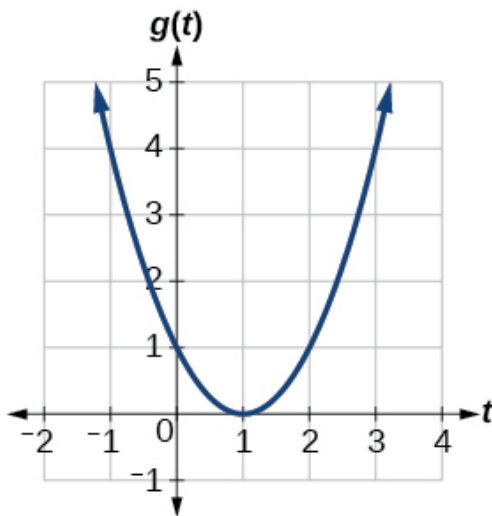
a. $[-2, 0]$

b. $[0, 2]$

c. $[-2, 2]$

Is the function linear, constant, or nonlinear?

13. Find the average rate of change over the intervals for the function, $g(t)$.



a. $[-1, 0]$

b. $[0, 2]$

c. $[1, 3]$

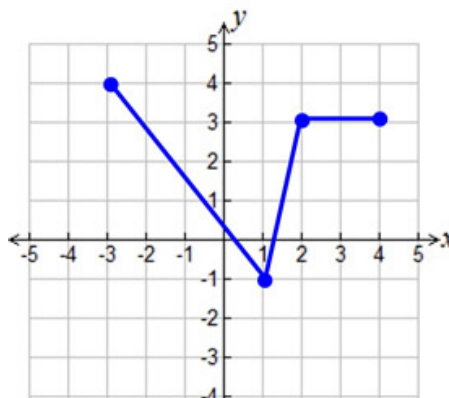
Is the function linear, constant or nonlinear?

For 14-15, describe the transformations that would be applied to its parent function.

$$14. y = -\frac{1}{2}f(4(x - 3)) + 5$$

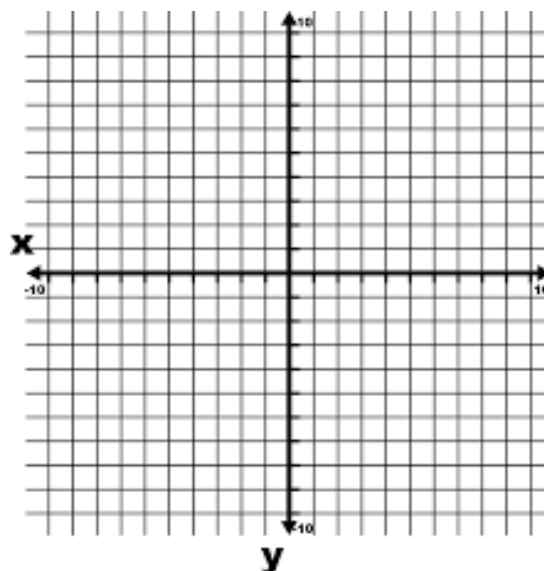
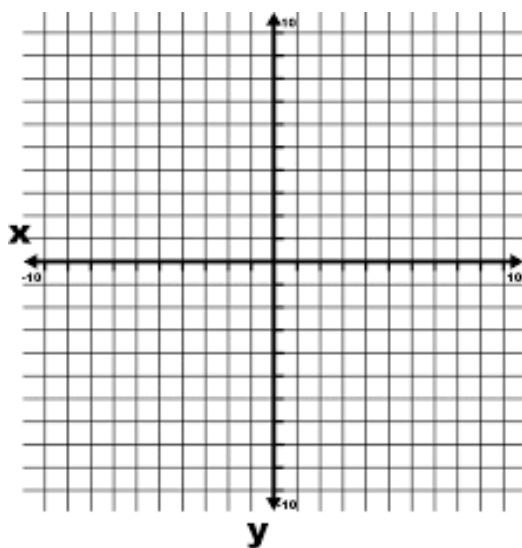
$$15. y = 3f\left(-\frac{1}{3}(x + 2)\right) - 1$$

For 16-17, the graph of $f(x)$ is shown. Sketch a graph of each of the following transformed functions.

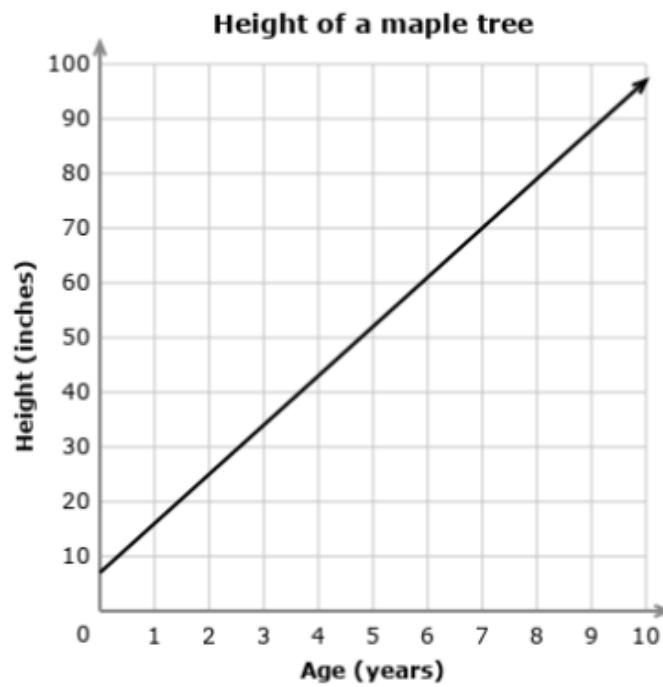


$$16. y = \frac{1}{2}f(x + 2)$$

$$17. y = -f(x - 1) + 2$$



This graph shows how one maple tree's height has changed with its age.



18. About how tall is the tree after 6 years?

19. How old is the tree when the height of the tree is 70 inches tall?