

Function Tables

FUN 1

Instructions: Complete each Function Table by calculating the output 'y' (or f(x)) for each input value 'x'.

1

$$y = 3x$$

Input x	Output y
0	
1	
2	6
3	
4	

2

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

Input x	Output f(x)
-2	
-1	
0	2
1	
2	

3

$$y = 2x - 3$$

Input x	Output y
2	
4	5
6	
8	
10	

4

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

Input x	Output f(x)
-2	-7
-1	
0	
1	
2	

5

$$y = \frac{x}{2}$$

Input x	Output y
-10	
-4	-2
0	
4	
10	

6

$$f(x) = \frac{x}{2} + 3$$

Input x	Output f(x)
-8	-1
-6	
-4	
-2	
0	

Function Tables & Graphs

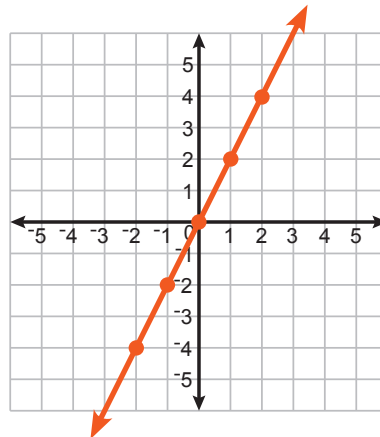
FUN 2

Instructions: Complete each Function Table and then graph the function. Remember that each row of the function table forms an ordered pair (x, y).

1

$$y = 2x$$

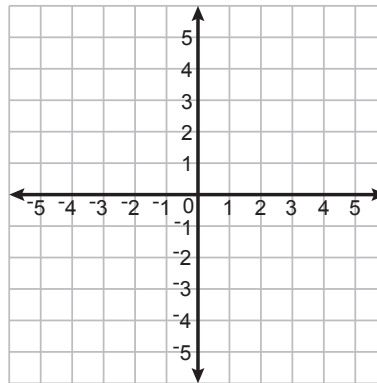
Input x	Output y
-2	-4
-1	-2
0	0
1	2
2	4



2

$$y = x - 2$$

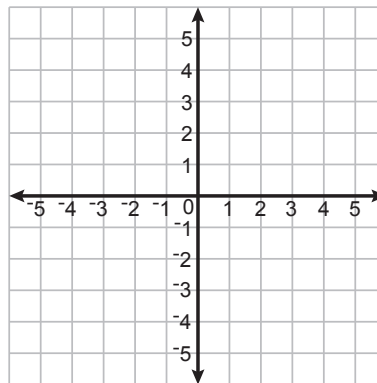
Input x	Output y
-2	
0	
2	
4	
6	



3

$$y = x^2$$

Input x	Output y
-2	
-1	
0	
1	
2	

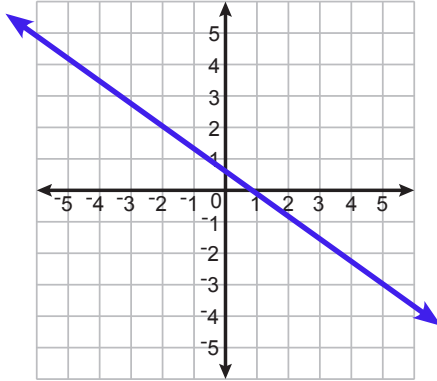


The Vertical Line Test - Set 1

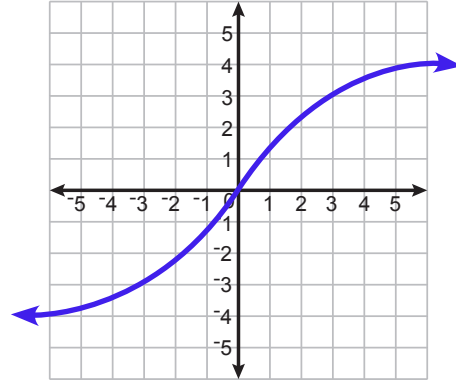
FUN 3

Instructions: Use the Vertical Line Test to determine if each of these graphs qualifies as a function.

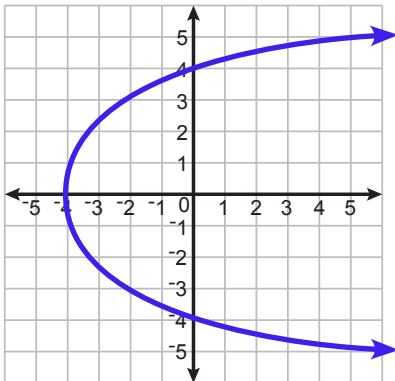
1 Function? Yes No



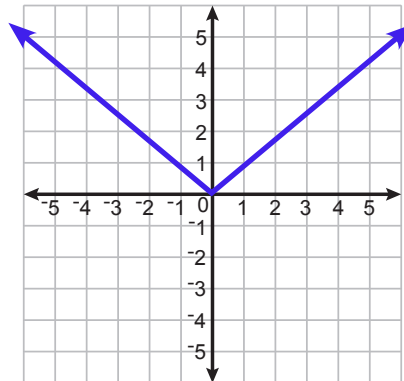
2 Function? Yes No



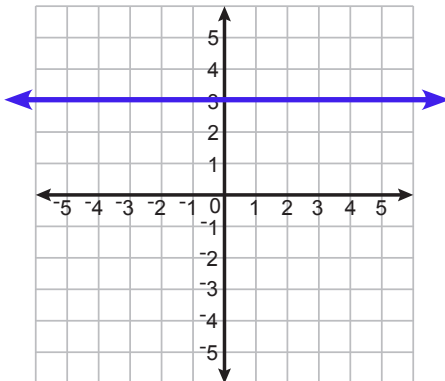
3 Function? Yes No



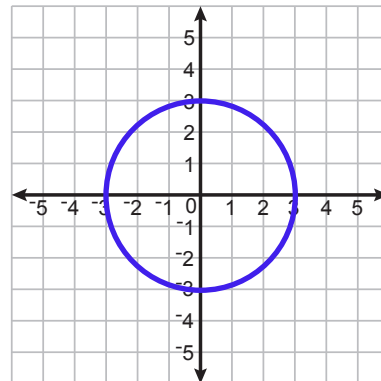
4 Function? Yes No



5 Function? Yes No



6 Function? Yes No

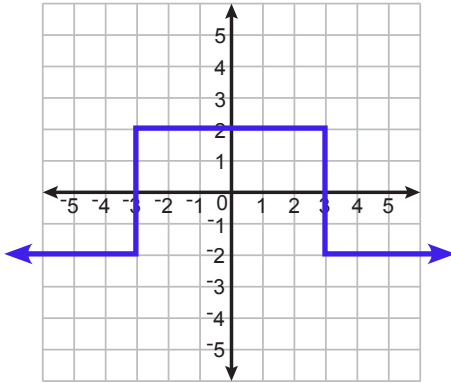


The Vertical Line Test - Set 2

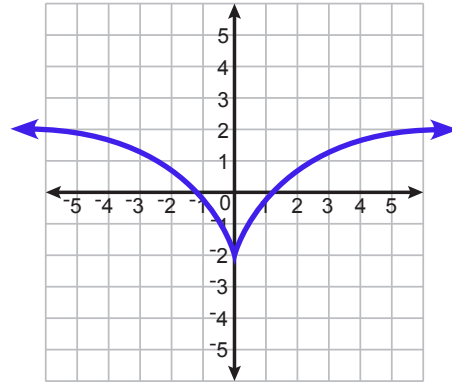
FUN 4

Instructions: Use the Vertical Line Test to determine if each of these graphs qualifies as a function.

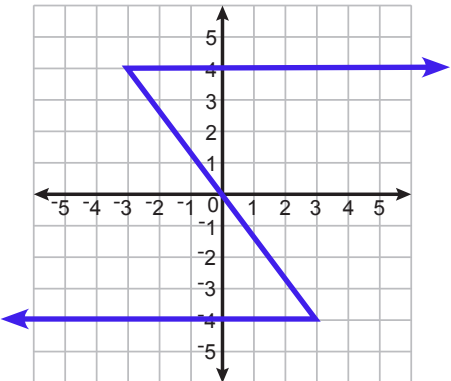
1 Function? Yes No



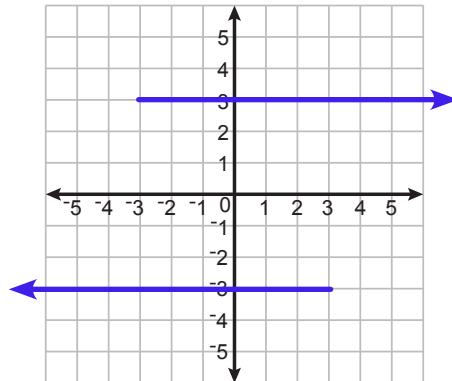
2 Function? Yes No



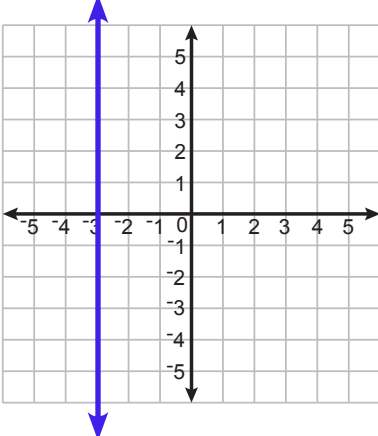
3 Function? Yes No



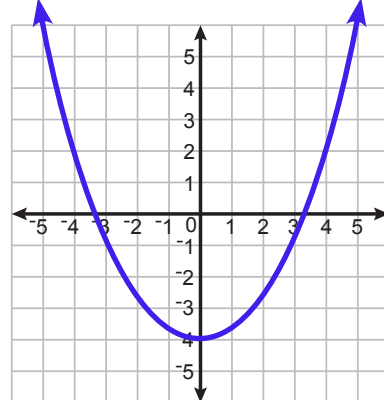
4 Function? Yes No



5 Function? Yes No



6 Function? Yes No



Evaluating Functions

FUN 5

Instructions: Evaluate each function for the specified value. In other words, calculate the function's output value for the given input value.

1 Let $f(x) = 4x - 3$
Evaluate $f(2)$

$$\begin{aligned} f(2) &= 4(2) - 3 \\ &= 8 - 3 \\ f(2) &= 5 \end{aligned}$$

2 Let $f(x) = 2x + 1$
Evaluate $f(0)$

3 Let $g(a) = a^2 + 1$
Evaluate $g(-2)$

4 Let $f(x) = x^2 + x$
Evaluate $f(3)$

5 Let $g(a) = \frac{a}{2} + 3a$
Evaluate $g(-4)$

6 Let $f(t) = \frac{t^2}{2} + t$
Evaluate $f(-4)$

7 Let $f(x) = 3x^2 - 2x$
Evaluate $f(5)$

8 Let $g(a) = 3a^3 + 5$
Evaluate $g(-1)$