

What Are Functions?

1 Fill in the blank.

The input set of a function is called the domain and the output set is called the range

2 True or False?

Functions aren't allowed to have "one-to-many" relations.

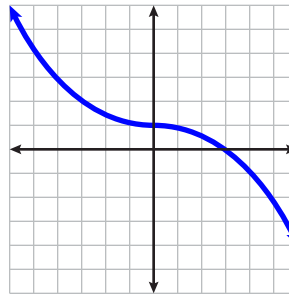
True False

3 Complete this function table.

$$y = 2x - 1$$

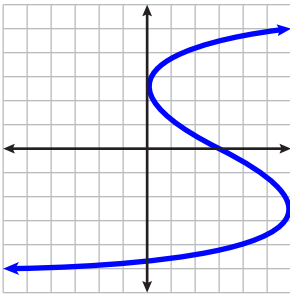
Input x	Output y
3	5
2	3
1	1
0	-1
-1	-3

4 Is this a function?
(Hint: Use the vertical line test.)



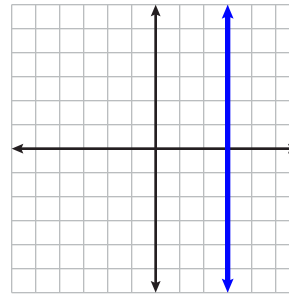
Yes
 No

5 Is this a function?
(Hint: Use the vertical line test.)



Yes
 No

6 Is this a function?
(Hint: Use the vertical line test.)



Yes
 No

7 Evaluate.

Let $f(x) = x^2 + 1$
What is $f(3)$?

$$\begin{aligned} f(3) &= 3^2 + 1 \\ &= 9 + 1 \\ &= 10 \end{aligned}$$

8 Evaluate.

Let $f(x) = x^2 + 3x$
What is $f(-1)$?

$$\begin{aligned} f(-1) &= (-1)^2 + 3(-1) \\ &= 1 + (-3) \\ &= -2 \end{aligned}$$