

IS THE RELATION A FUNCTION?

A relation is a rule that takes input values and assigns them to output values. A relation is a **function** if every input value has exactly one output value.

★ **Try it!** Determine if each relation is a function. Circle the correct answer.

1.

x	y
-3	0
6	2
6	4
11	-1

Is the relation a function? **Yes** **No**

2.

x	y
-7	7
-2	2
4	4
7	7

Is the relation a function? **Yes** **No**

3.

x	y
3	-2
-1	-2
2	-3
3	-5

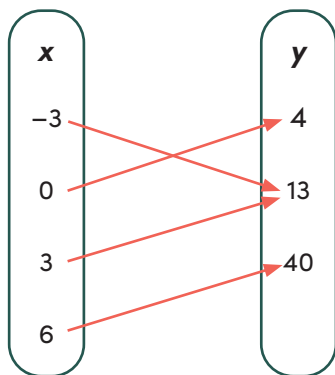
Is the relation a function? **Yes** **No**

4.

x	y
10	7
-10	7
20	-3
-10	-3

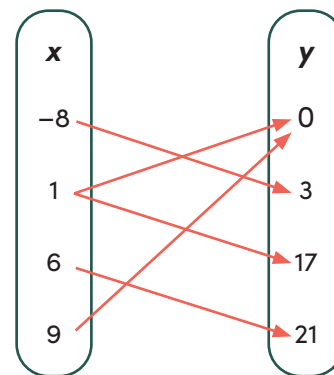
Is the relation a function? **Yes** **No**

5.



Is the relation a function? **Yes** **No**

6.

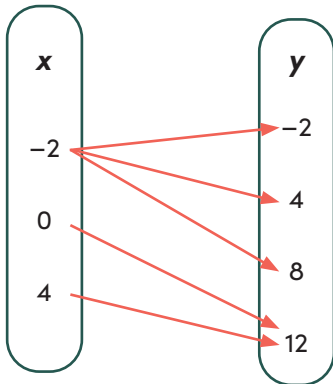


Is the relation a function? **Yes** **No**

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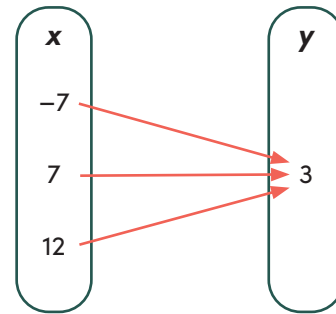
★ **Keep going!** Determine if each relation is a function. Circle the correct answer.

7.



Is the relation a function? **Yes** **No**

8.



Is the relation a function? **Yes** **No**

9.

$(-2, 3), (5, -1), (-2, 6), (3, -8)$

Is the relation a function? **Yes** **No**

10.

$(3, 14), (-7, -2), (0, 14), (5, 6)$

Is the relation a function? **Yes** **No**

11.

$(0, 0), (1, 1), (2, 2), (-1, -1)$

Is the relation a function? **Yes** **No**

12.

$(8, -1), (10, 4), (8, 1), (10, -4)$

Is the relation a function? **Yes** **No**

★ **Challenge yourself!** In each problem below, you are given a relation. Follow the directions to add or remove values to make each relation a function or not a function.

13. Fill in the last row of the table with values that would make the relation **not** a function.

x	y
-3	-5
1	-1
6	3

14. Cross out a row in the table that when removed would make the relation a function.

x	y
-8	1
4	-3
3	-3
4	-8

15. Add a new ordered pair that would make the relation **not** a function.

$(6, 12), (3, -8), (2, -4), (\underline{\quad}, \underline{\quad})$

16. Cross out an ordered pair that when removed would make the relation a function.

$(5, 0), (3, -1), (-11, 0), (3, 14)$