

Function Check

Match every input with one output.

GRADE 8 • NY-8.F.1

NY-8.F.1 "Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output."

NAME _____

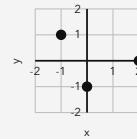
DATE _____

ONE INPUT, ONE OUTPUT

A function gives each input exactly one output. On a graph, check whether any x-value is paired with more than one y-value.

WORKED EXAMPLE

Use the plotted points. Is the relation a function? What is the output when $x = 2$?



1. Read the points as $(-1, 1)$, $(0, -1)$, and $(2, 0)$.
2. No input is used more than once.
3. The point with $x = 2$ has $y = 0$.

Answer: Yes; 0

PRACTICE 4 problems

1 Is $\{(3, 7), (4, 9), (5, 11)\}$ a function?

ANSWER _____

2 For $y = 4x - 3$, find the output when $x = 6$.

ANSWER _____

3 Why is $\{(7, 12), (7, 15), (8, 16)\}$ not a function?

ANSWER _____

4 For $y = 3x + 4$, write the ordered pair when $x = 9$.

ANSWER _____

APPLY IT Show your work

- 1** At a skate park, each member ID is assigned one locker number. Use the table. Is locker number a function of member ID? What locker does ID 24 get?

SKATE PARK LOCKERS

Member ID	Locker Number
18	5
24	7
31	2
42	9

ANSWER _____

- 2** A playlist challenge gives 6 points for each song played. Lana plays 8 songs. Write the ordered pair (songs, points). Is points a function of songs?

WORK SPACE

ANSWER _____

CHALLENGE One step up

The number line shows input values for $y = 3x - 20$. List the ordered pairs. Explain why they represent a function.



WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Is $\{(3, 7), (4, 9), (5, 11)\}$ a function?	Yes
2	For $y = 4x - 3$, find the output when $x = 6$.	21
3	Why is $\{(7, 12), (7, 15), (8, 16)\}$ not a function?	Input 7 has two outputs, 12 and 15.
4	For $y = 3x + 4$, write the ordered pair when $x = 9$.	(9, 31)

PART 2 • APPLY IT

1. **Yes; locker 7** Each member ID appears once and has one locker number. The row for ID 24 shows locker 7.
2. **(8, 48); yes** Multiply 8 by 6 to get 48 points. Each number of songs gives one total number of points.

CHALLENGE

(10, 10), (12, 16), (14, 22). Each input has exactly one output.

Accept equivalent wording that identifies one output for each input. Ordered pairs must list input first and output second.