LESSON MAKER PRO

Graph or Not?

Read pairs and check inputs.

GRADE 8 · 8.AT.C.6.b

8.AT.C.6.b "Given a graph, identify input-output pairs and determine whether the graph represents a function."

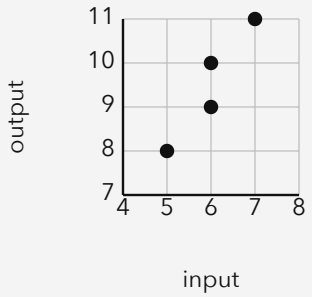
NAME _____ DATE _____

ONE INPUT, ONE OUTPUT

Read a point as (input, output). A graph is a function if each input has only one output. To check, look for points that line up above and below each other.

WORKED EXAMPLE

List the plotted pairs. Is this graph a function?



1. Read the points: (5, 8), (6, 9), (6, 10), (7, 11).
2. Input 6 has two outputs, 9 and 10.

Answer: The pairs are (5, 8), (6, 9), (6, 10), and (7, 11). No, it is not a function.

PRACTICE 4 problems

1 For (-3, 2), name the input and output.

ANSWER _____

2 Would {(-2, 1), (0, 1), (2, 1)} make a function when plotted?

ANSWER _____

3 Would {(-1, 0), (1, 2), (-1, 3)} make a function when plotted?

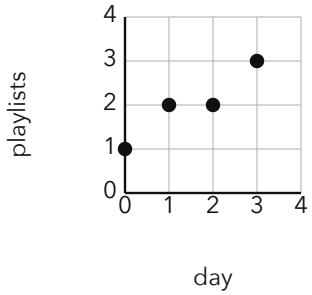
ANSWER _____

4 For {(0, -2), (2, 0), (3, 2)}, what output goes with input 3? Is it a function?

ANSWER _____

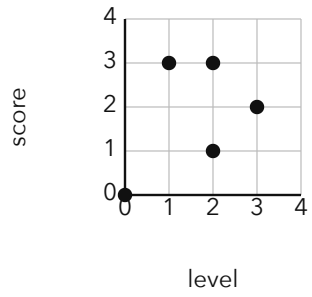
APPLY IT Show your work

1 A music app plots day (x) and playlists saved (y). List the pairs. Is the graph a function?



ANSWER _____

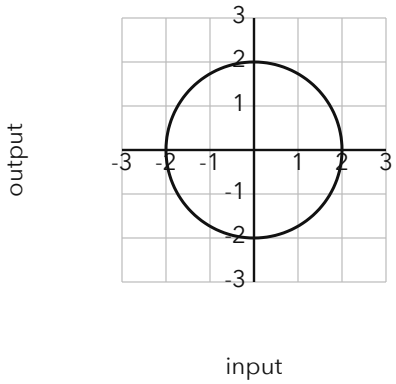
2 Two players' game scores are plotted against level (x). What outputs go with level 2? Is the graph a function?



ANSWER _____

CHALLENGE One step up

On the circle, give two pairs with input 0. Is this graph a function? Explain.



WORK SPACE AND ANSWER

ANSWER KEY

Graph or Not?

GRADE 8 · 8.AT.C.6.b

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	For (-3, 2), name the input and output.	**Input: -3. Output: 2.**
2	Would {(-2, 1), (0, 1), (2, 1)} make a function when plotted?	**Yes.**
3	Would {(-1, 0), (1, 2), (-1, 3)} make a function when plotted?	**No.**
4	For {(0, -2), (2, 0), (3, 2)}, what output goes with input 3? Is it a function?	**The output is 2. Yes, it is a function.**

PART 2 · APPLY IT

1. **(0, 1), (1, 2), (2, 2), (3, 3). Yes, it is a function.** Read each plotted point. No input has two outputs.
2. **The outputs are 1 and 3. No, it is not a function.** Two points have input 2 but different outputs.

CHALLENGE

(0, 2) and (0, -2). No, it is not a function because input 0 has two outputs.

Accept pairs in any order. For a function, different inputs may share an output.