



What a function is

GRADE 8 MATH

Name _____

Date _____

For each one, say whether it is a function and how you know.

WORKED EXAMPLE

Each **input** gets exactly **one output**. Repeated outputs are fine; a repeated input with different outputs is not.

1. Is this a function? (2,7) (3,7) (4,7)

FLUENCY

Show your thinking

Answer

2. Is this a function? (5,1) (6,2) (5,9)

FLUENCY

Show your thinking

Answer

3. Write the definition of a function in your own words.

REASONING

Show your thinking

Answer

4. Explain the difference between “each input has one output” and “each output has one input”.

REASONING

Show your thinking

Answer

5. Is $y = x^3$ a function? What about a circle?

APPLICATION

Show your thinking

Answer

6. Why is the vertical line test vertical and not horizontal?

REASONING

Show your thinking

Answer

7. Give a function that is NOT a straight line.

APPLICATION

Show your thinking

Answer

8. A vending machine gives a different snack each time you press B2. Is that a function?

REASONING

Show your thinking

Answer

9. Make a table of four pairs that is NOT a function, and say which pair breaks it.

APPLICATION

Show your thinking

Answer