

Name: _____

Date: _____

A function gives EXACTLY ONE output for each input. Last two are challenge problems!

- 1.** Is this a function? $\{(1,2), (2,4), (3,6)\}$

show your work

- 2.** Is this a function? $\{(1,5), (2,7), (1,9)\}$

show your work

- 3.** Is this a function? $\{(3,4), (5,4), (7,4)\}$

show your work

- 4.** Machine rule: 'double the input.'
Input 6 gives?

show your work

5. Table: $x = 1, 2, 3, 4$ with $y = 3, 6, 9, 12$.
Is it a function? What is the rule?

show your work

6. Is this a function? $x = 2, 4, 2, 6$ with $y = 1, 3, 5, 7$

show your work

7. A vending machine gives one snack per code. Function or not?

show your work

8. Rule: 'the output is the input squared.' Complete: input -3 gives?

show your work

9. $\{(0,1), (1,3), (2,5), (k,7)\}$ is a *** CHALLENGE** function. Which value can k NOT be?

show your work

10. A relation pairs each student with every class they take (most take 6). *** CHALLENGE** Function? Why?

show your work