

Unit 5, Lessons 1 & 2: Inputs, Outputs, & Functions

1.2: Guess My Rule

Log on to Learnzillion and go to “assignments”. Work with your neighbor to figure out the rule the black box applies to the “input” number.

1. Change the input number and click “go”.
2. It will keep track of the inputs and outputs for you on the table on your screen.
3. Try to figure out the rule the black box is applying to the input number. Type what you think the rule is into the box. Click “enter” to see if you are correct. If you are not correct, try again. If you are correct, click “new rule”.
4. See how many rules you can correctly guess. Write down the rules you figured out.

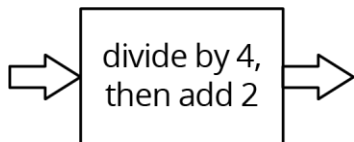
1.3: Making Tables

For each input-output rule, fill in the table with the outputs that go with a given input. Add two more input-output pairs to the table.

$\frac{3}{4}$ → add 1 then multiply by 4 → 7	$\frac{3}{4}$ → name the digit in the tenths place → 7	$\frac{3}{4}$ → write 7 → 7																																				
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Unit 5, Lesson 1: Practice Problems: Inputs and Outputs

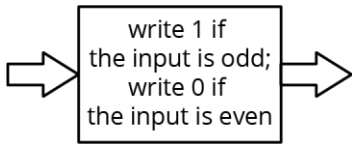
1. Given the rule:



Complete the table for the function rule for the following input values:

Input	0	2	4	6	8	10
output						

2. Here is an input-output rule:



Complete the table for the input-output rule:

input	-3	-2	-1	0	1	2	3
output							

2.2: You Know This, Do You Know That?

Say yes or no for each question. If yes, draw an input-output diagram. If no, give examples of two different outputs that are possible for the same input.

1. A person is 5.5 feet tall. Do you know their height in inches?
2. A number is 5. Do you know its square?
3. The square of a number is 16. Do you know the number?
4. A square has a perimeter of 12 cm. Do you know its area?
5. A rectangle has an area of 16 cm². Do you know its length?
6. You are given a number. Do you know the number that is $\frac{1}{5}$ as big?
7. You are given a number. Do you know its reciprocal?

2.3: Using Function Language

Looking at the statements above, for the ones you said yes to, these are called **functions** because the output depends on the input. The ones you said no to, are **not functions** because the input does not determine the output. For example, “The day of the week does not determine the temperature that day” or “The temperature that day is not a function of the day of the week.”

Go back and write “F” for Function next to the problem number of the ones that are functions and write “NF” for Not Function next to the problem number of the ones that are not functions.