

## 12.02.21    Fluent in five

1)  $581,000 - 193,412 =$

2)  $(40 + 8) \div 4 =$

3)  $14,000 + 59,000 =$

4)  $5.85 \times 9 =$

5) \_\_\_\_\_  $+ 1.505 = 8.504$

6)  $\frac{6}{10} \div 2 =$

1)  $752 + 1930 =$

2)  $2 \times 5 - 3 =$

3)  $1.82 \times 4 =$

4)  $1939 - 999 =$

5)  $\frac{1}{2}$  of 100 =

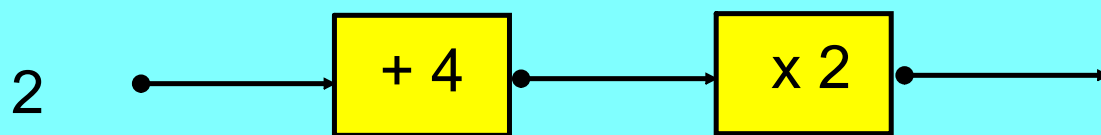
# WALT find a rule

<https://vimeo.com/499980302>

Yesterday we were looking at one step function machines. Today, we are looking at two steps.

Input

Output

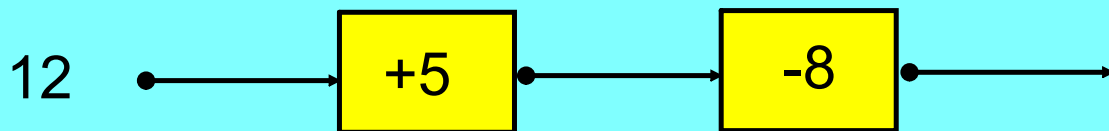


We have to follow a function machines method. So, the first function will always need to happen first.

What about this one?

Input

Output

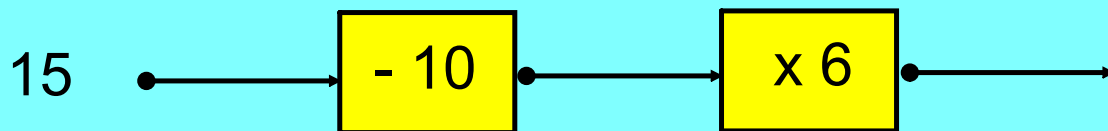


Is there a way of combining the two steps into one step?

Try these

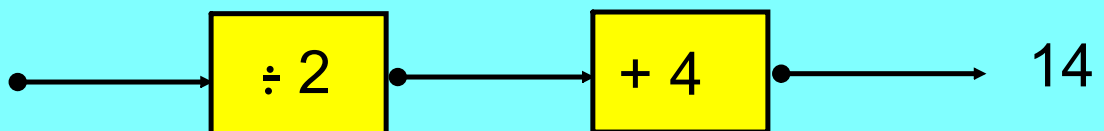
Input

Output



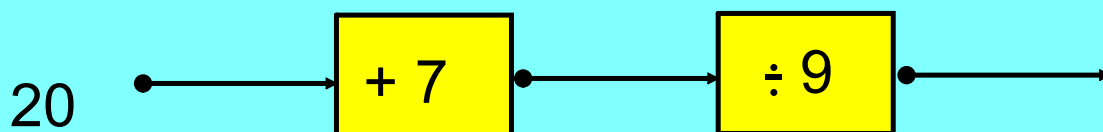
Input

Output



Input

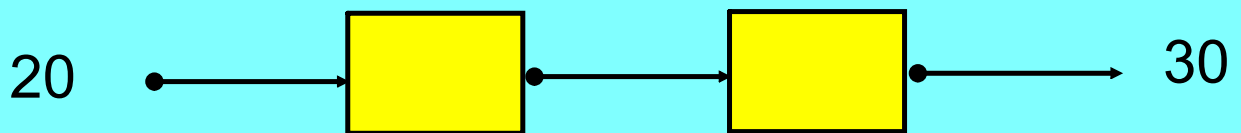
Output



What could the functions be?

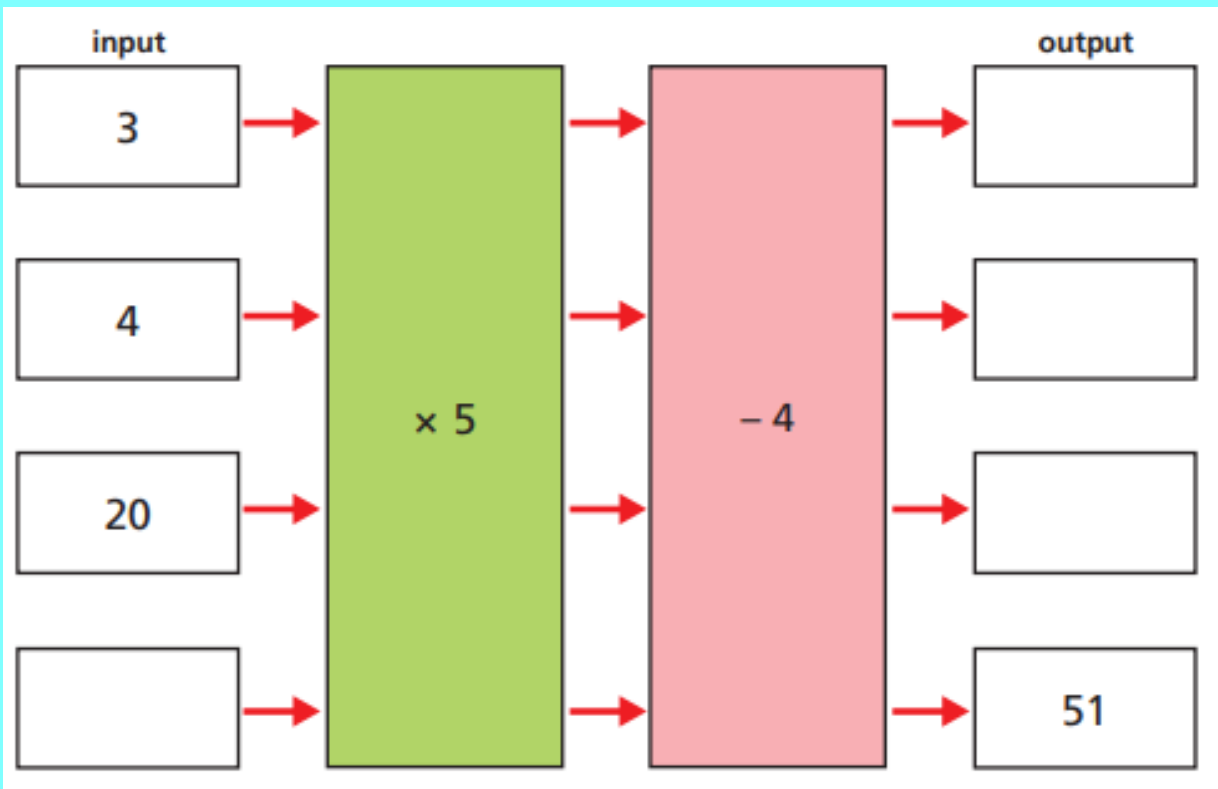
Input

Output

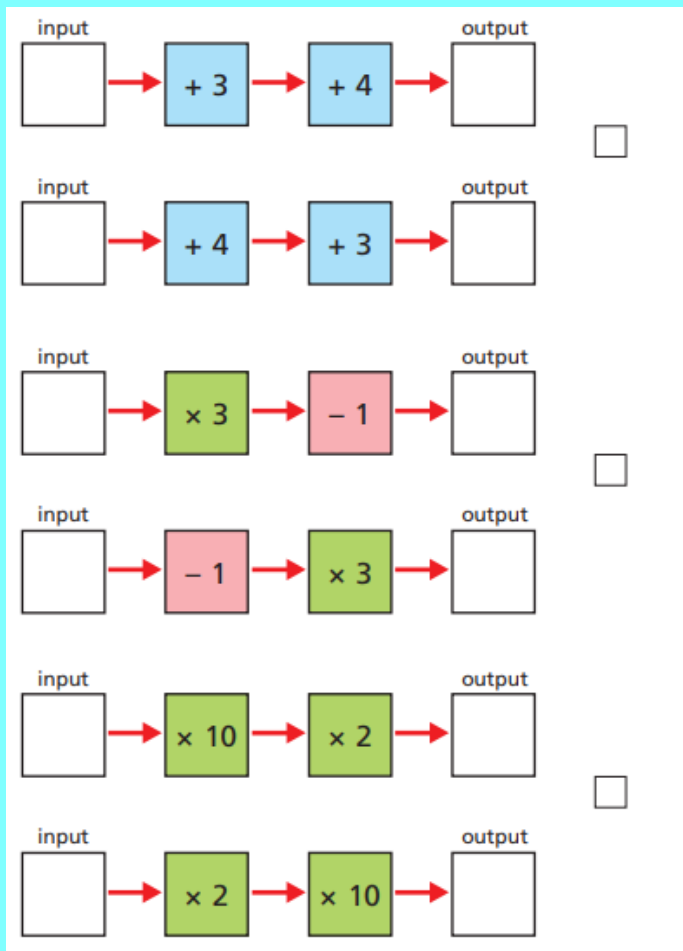


Is there more than one possibility?

How many can you find?



Tick the ones that would create the same output for a given input.





## Varied Fluency

Here is a function machine.



- What is the output if the input is 5?
- What is the input if the output is 19?
- What is the output if the input is 3.5?

Complete the table for the given function machine.



Input	1	2	3	4	5
Output					

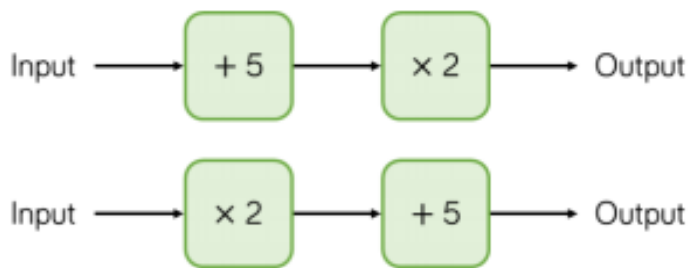
- What patterns do you notice in the outputs?
- What is the input if 20 is the output? How did you work it out?

How can you write this two-step machine as a one-step machine?



Check your answer by inputting values.

Teddy has two function machines.



He says,

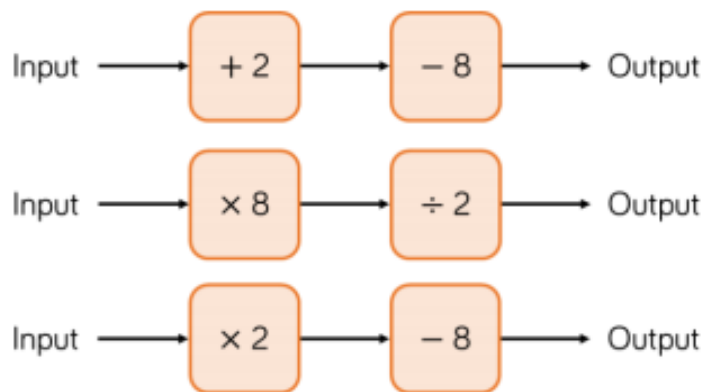


The function machines  
will give the same  
answer.

Is Teddy correct?

Is there an input that will give the same  
output for both machines?

Mo has the following function machines.



Explain which of these can be written as single function machines.