Flashback

A. 377 + 40 =

B. 80 x 9 =

C. 8,327 + 14,895 =

D. $\frac{1}{4}$ of 36 =

E. 73,294 + 79,569 =

Flashback

A. 377 + 40 = 417 *(M)*

B. 80 x 9 = 720 *(M)*

C. 8,327 + 14,895 = 23,222 *(W)*

D. $\frac{1}{4}$ of 36 = 9 *(M)*

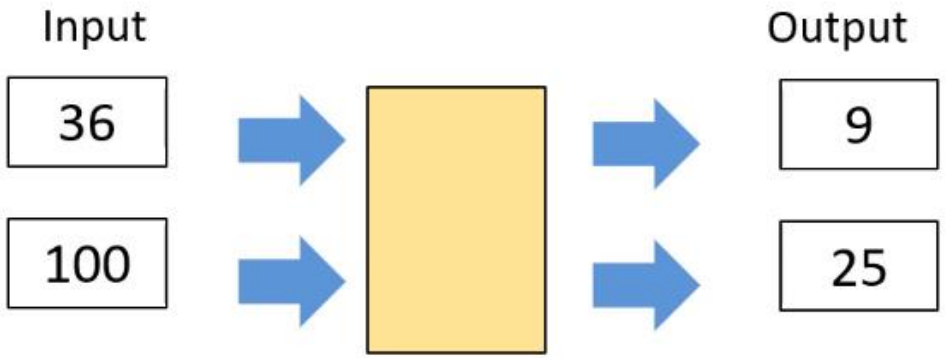
E. 73,294 + 79,569 = 152,863 *(W)*

Tuesday 23rd February 2021

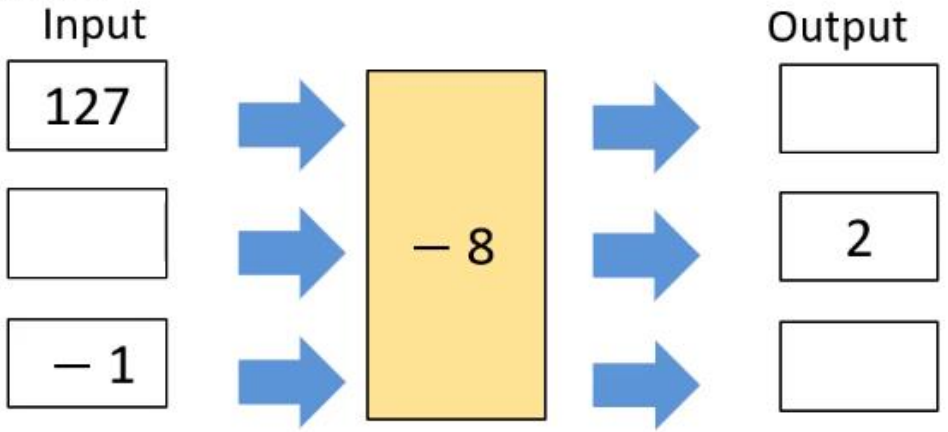
LO: Find a rule – two step

Get ready questions

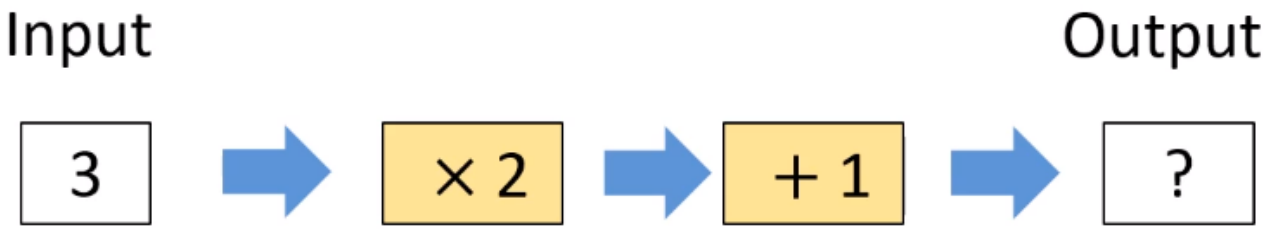
1) Write the missing function in the function machine.

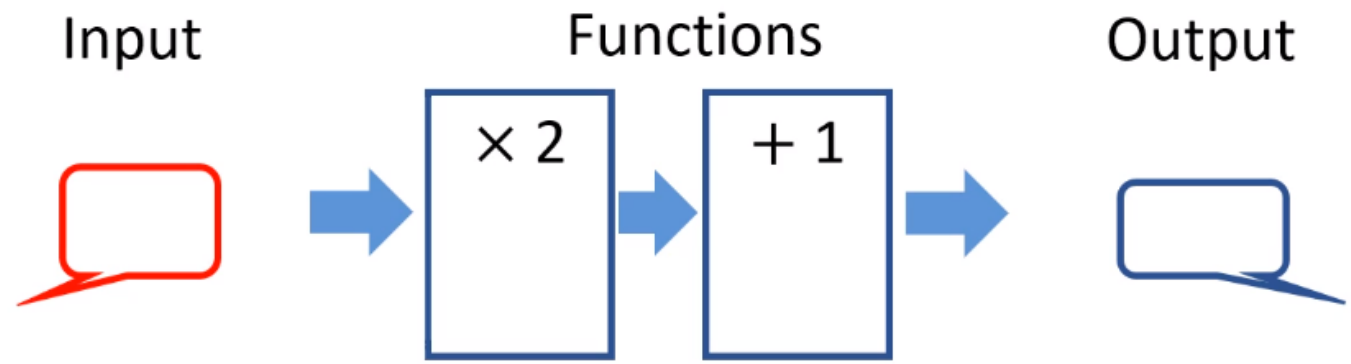


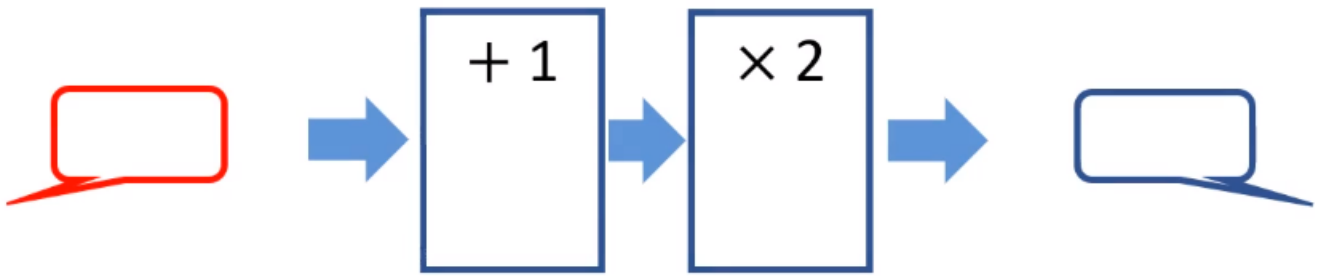
2) Calculate the missing inputs and outputs for the function machine.



A function machine is a way of writing rules.



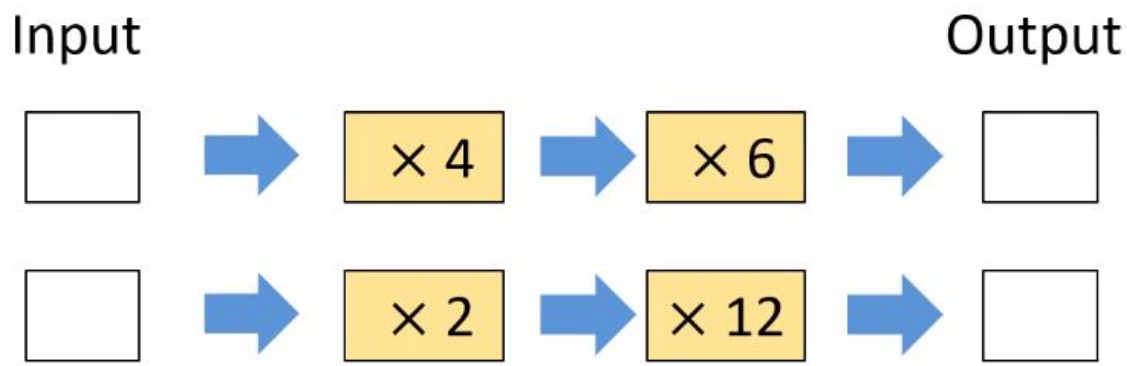




I wonder if it makes a difference which order the functions are in …

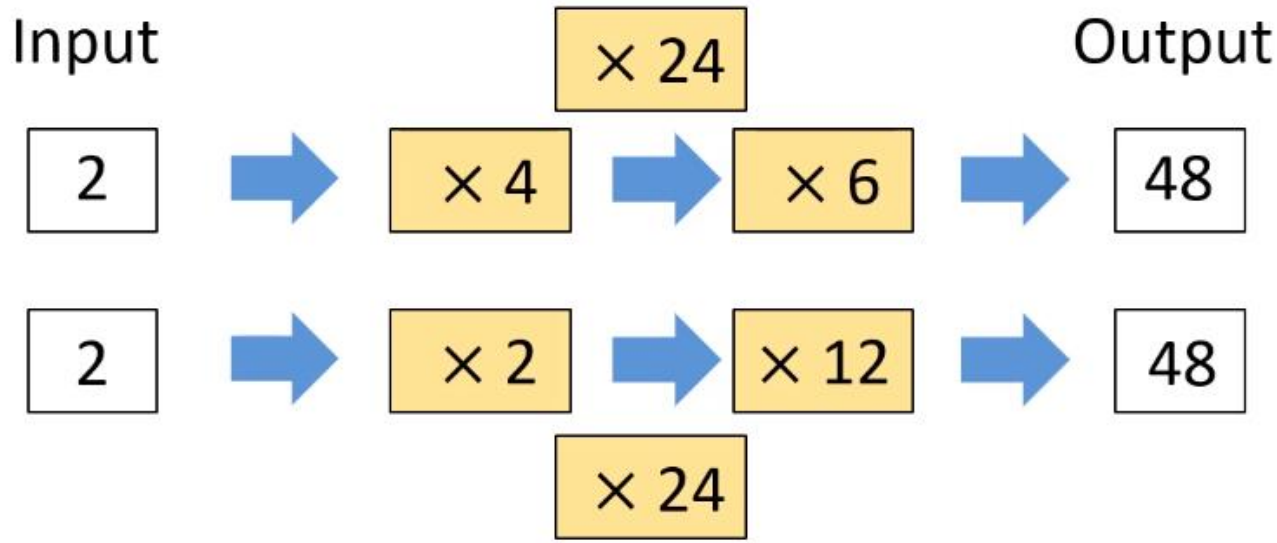
True or False

These function machines will give the same output if the input is the same.

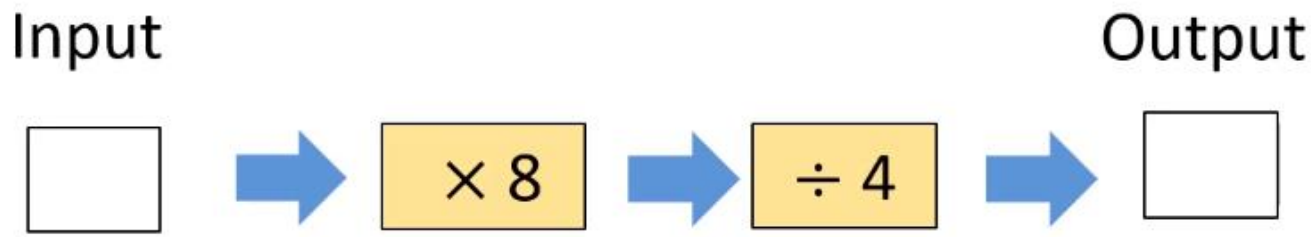


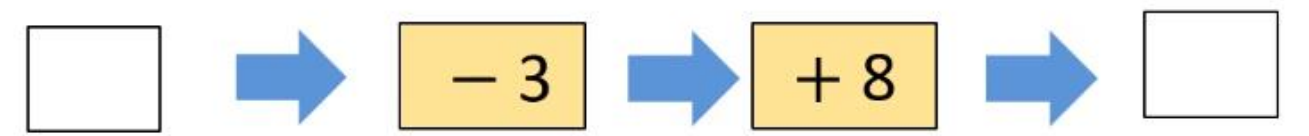
True or False

These function machines will give the same output if the input is the same.



For each function machine, write a single step that would give the same output.





Have a think

Eva is ordering some crayons online. She needs to buy 22 crayons altogether.

How much will it cost for 22 crayons including delivery?

30p each

£1.60 to deliver

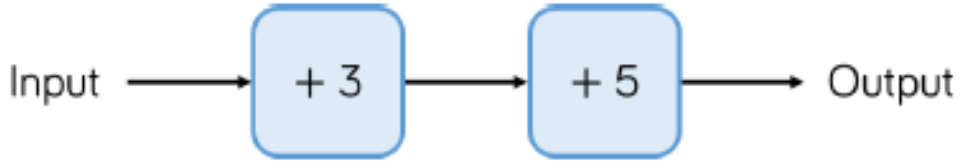
Can you create a function machine to help you?

Input						Output
22	→	× 0.30	→	+ £1.60	→	£8.20
		£6.60				

$22 \times 0.3 = 6.6$

A

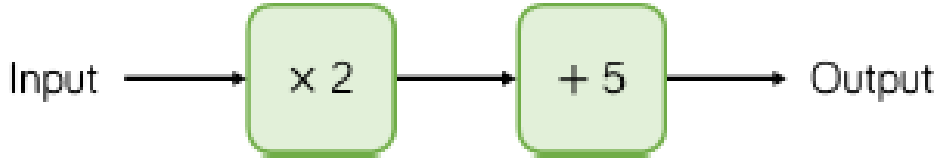
1. How can you write this two-step machine as a one-step machine?



Check your answer by inputting values.

Is your answer the same with a two step function and the one step function? Prove it with an example

2. Here is a function machine.

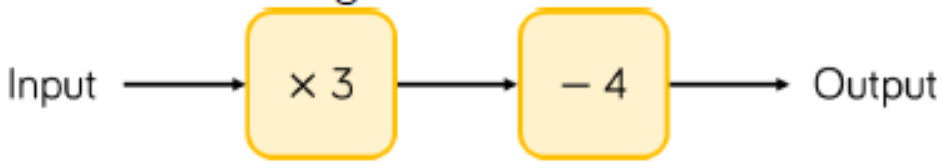


- What is the output if the input is 5?
- What is the input if the output is 19?
- What is the output if the input is 3.5?

3. How can you write +5 followed by – 2 as a one step function?

B

1. Complete the table for the given function machine.



Input	1	2	3	4	5
Output					

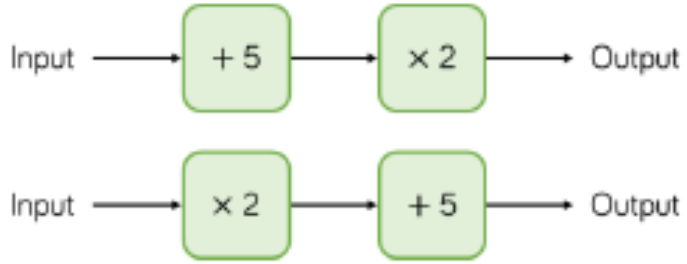
- What patterns do you notice in the outputs?
- What is the input if 20 is the output? How did you work it out?

2. If you add 3 to a number and then add 5 to the result, how much have you added on altogether?

3. If I change the order of the functions, is the output the same? Explain with an example.

C

1. Teddy has two function machines.



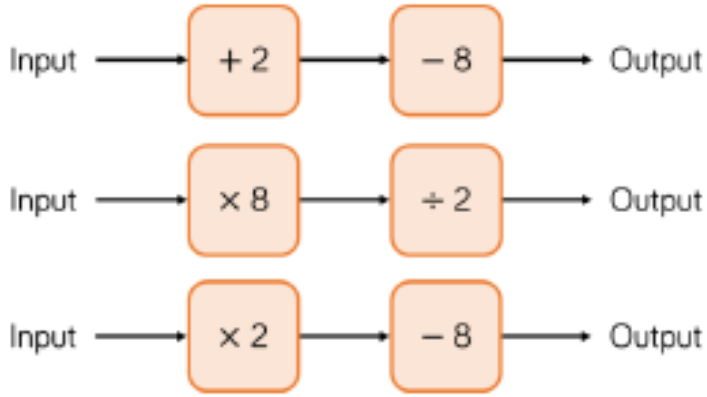
He says,

The function machines will give the same answer.

Is Teddy correct?

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

2. Mo has the following function machines.



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