

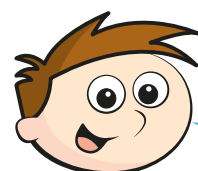
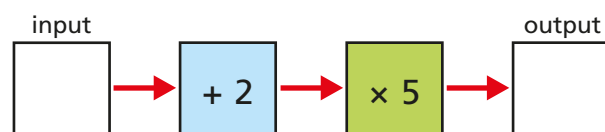
# Find a rule – two step

1 Use the function machine to complete the table.



| Input  | 1 | 2 | 3 | 5 | 10 | 50 |
|--------|---|---|---|---|----|----|
| Output |   |   |   |   |    |    |

2 Here is the same function machine with the steps in the reverse order.



Teddy

The outputs will be the same.



Jack

The outputs will be different.

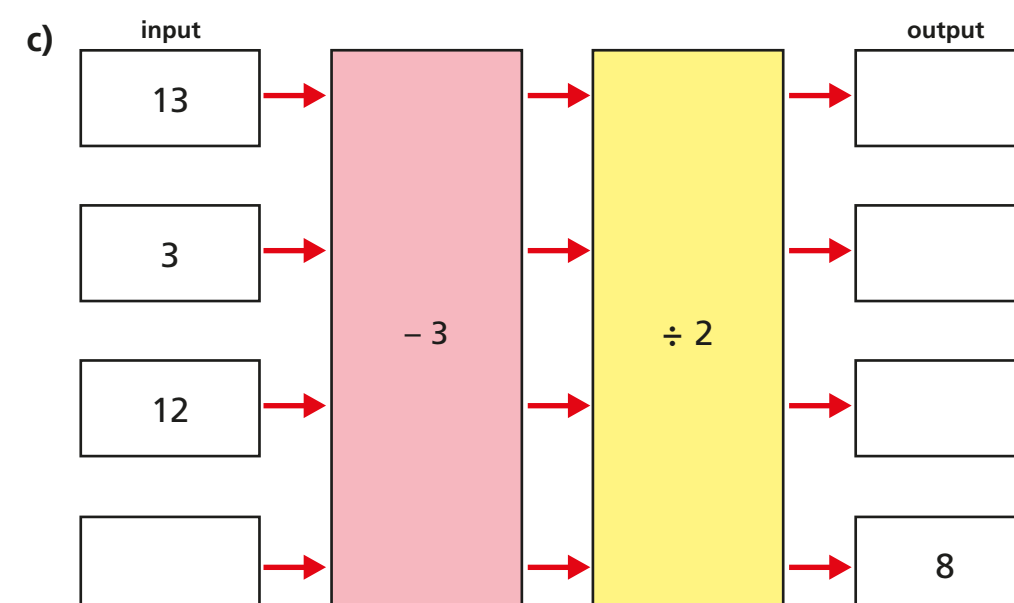
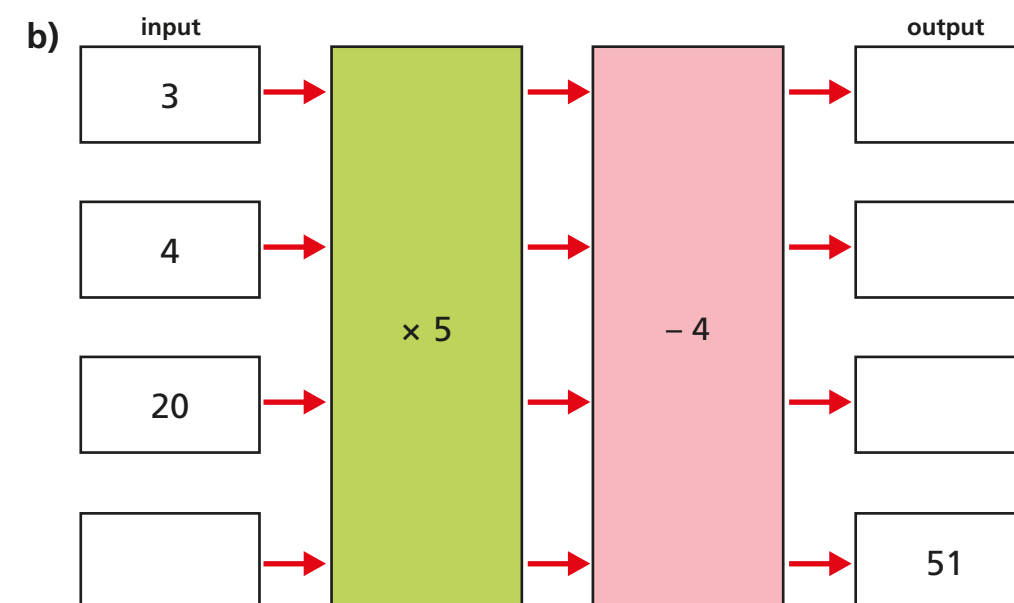
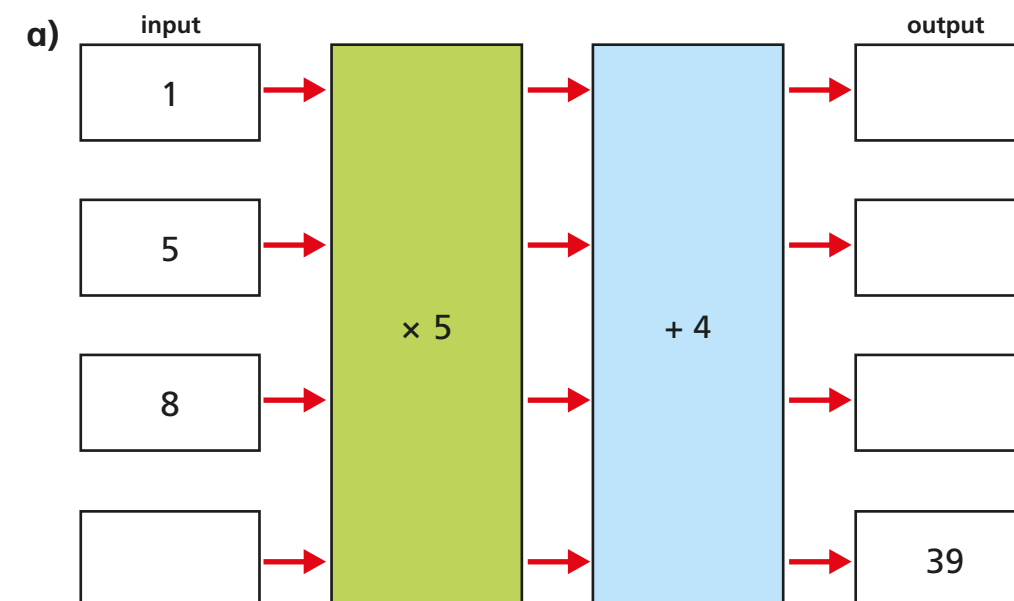
Explain to a partner who you think is correct.

Use the function machine to complete the table.

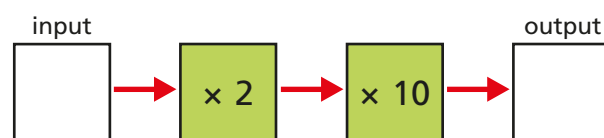
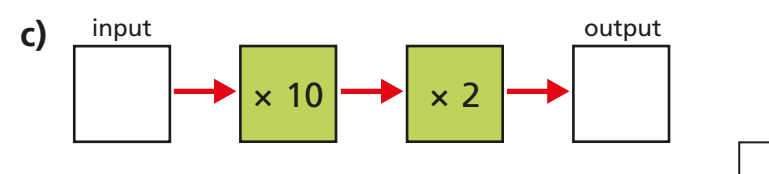
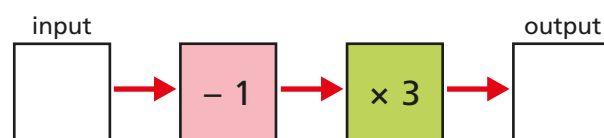
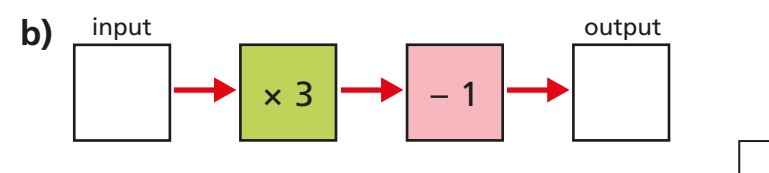
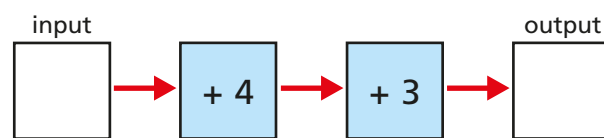
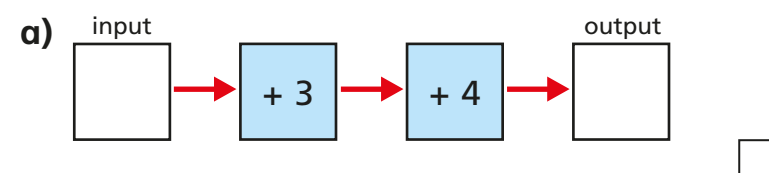
| Input  | 1 | 2 | 3 | 5 | 10 | 50 |
|--------|---|---|---|---|----|----|
| Output |   |   |   |   |    |    |

Who is correct? \_\_\_\_\_

3 Work out the missing outputs and inputs.



- 4 Tick the pairs of function machines that will give the same outputs for a given input.

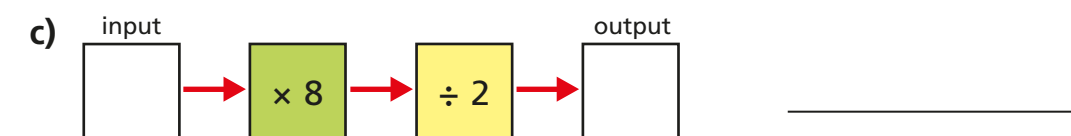
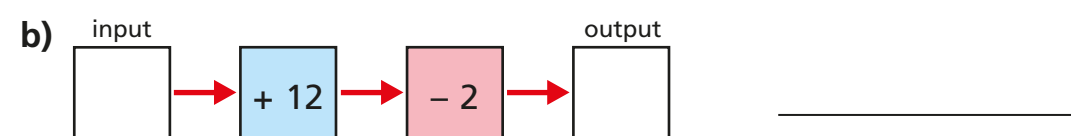
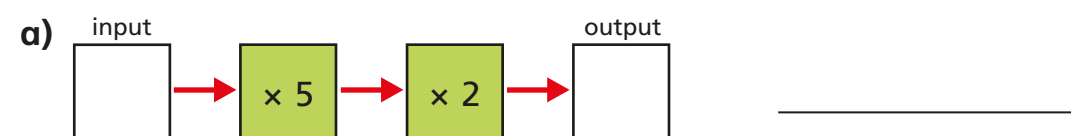


Explain your reasoning to a partner.



- 5 Here are some 2-step function machines.  
For each machine, write a single step that would give the same output.

Check your answers by inputting values.

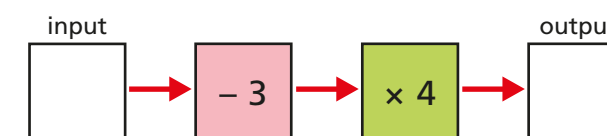


Can all 2-step function machines be written as a 1-step function machine?

Talk about it with a partner.



- 6 Here is a function machine.



- a) Complete the table.

|        |    |   |    |     |
|--------|----|---|----|-----|
| Input  | 10 | 3 |    |     |
| Output |    |   | 40 | 280 |

- b) Rosie puts a number into the machine and she gets out the same number.

Work out Rosie's number.

- 7 Mr Hall and Mrs Rose order some photos online.

- a) Mr Hall orders 16 photos.

How much does he pay?




- b) Mrs Rose pays £6.05

How many photos did she order?