

# W3\_HW\_Y6

### Find a Rule – Two Step

4a. Insert two functions that could be used to make the function machine correct.

Input:	Functions:	Output:
0	? → ?	-12

### Find a Rule – Two Step

4b. Insert two functions that could be used to make the function machine correct.

Input:	Functions:	Output:
-18	? → ?	-2

### Find a Rule – Two Step

7a. Insert two functions that could be used to make the function machine correct.

Input:	Functions:	Output:
$\frac{8}{10}$	? → ?	7.9

### Find a Rule – Two Step

7b. Insert two functions that could be used to make the function machine correct.

Input:	Functions:	Output:
-9.8	? → ?	-115

### True or False?

5a. True or false? Explain your answer. Suggest what the functions could be.

Inputs:	Functions:	Outputs:
6	? → ?	5
8	? → ?	6

Henryk: I think that the function is  $+ 3$  and then add 3 because  $6 + 3$ , then  $+ 3$  is 5.

### True or False?

5b. True or false? Explain your answer. Suggest what the functions could be.

Inputs:	Functions:	Outputs:
11	? → ?	17
7	? → ?	9

Luanne: I think that the function is  $+ 11$  and then  $\div 2$  because  $7 + 11$ , then  $\div 2$  is 9.

### True or False?

8a. True or false? Explain your answer. Suggest what the functions could be.

Inputs:	Functions:	Outputs:
7	? → ?	2.7
3	? → ?	2.3

Jiang: I think that the function is  $\times 2$  and then  $- 3.7$  because  $3 \times 2$ , then  $- 3.7$  is 2.3.

### True or False?

8b. True or false? Explain your answer. Suggest what the functions could be.

Inputs:	Functions:	Outputs:
10	? → ?	13
25	? → ?	16

Ingrid: I think that the function is  $\times 2$  and then  $- 7$  because  $10 \times 2$ , then  $- 7$  is 13.

### Function Machine

6a. Eesa is using this function machine.

Functions:
$-4$ → $\div 2$

He puts an input into the function machine to generate an output. He then puts that output into the machine as an input. He now has the output of 1.5.

What was Eesa's original input?

### Function Machine

6b. Jake is using this function machine.

Functions:
$\times 4$ → $- 7.5$

He puts an input into the function machine to generate an output. He then puts the output back into the machine. He now has the output of 10.5.

What was Jake's original input?

### Function Machine

9a. Jaiden is using this function machine.

Functions:
$+ 7.5$ → $\div 10$

He puts an input into the function machine to generate an output. He then puts that output into the machine as an input. He now has the output of 0.875.

What was Jaiden's original input?

### Function Machine

9b. Lucy is using this function machine.

Functions:
$\times 11$ → $- 9.2$

She puts an input into the function machine to generate an output. She then puts that output into the machine as an input. She now has the output of 252.6.

What was Lucy's original input?

## Expected

Jo and Ron are working out the rule for the function machine.



The rule is  $+ 40$

Jo



The rule is  $\times 11$

Ron

Who do you agree with?  
Explain your answer.

## Greater Depth

Tiny is working out the missing number.

Input	9	7	3.5	-2
Output	19	17	13.5	

The missing number is -12



Explain Tiny's mistake.  
What is the missing number?