

Functions

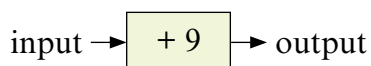
- Using function machines
- Using functions to make sequences

Keywords

You should know

explanation 1

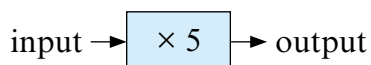
- 1** Here is a function machine.



Write the output for each input value.

- a** 1 **b** 4 **c** 17 **d** 100

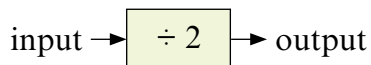
- 2** Here is another function machine.



Write the output for each input value.

- a** 3 **b** 11 **c** 7 **d** 21

- 3** Here is another function machine.

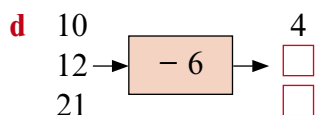
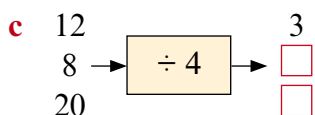
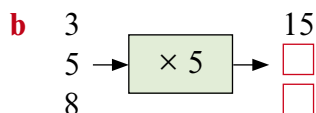
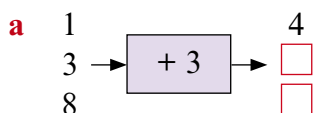


Write the output for each input value.

- a** 4 **b** 12 **c** 8 **d** 22

explanation 2

- 4** Copy and complete these function machines.



5 Copy and complete these function machines.

a

4		15
7	→ $+$ →	
16		

b

5		
8	→ \times →	48
10		

c

7		
14	→ \div →	
21		3

d

10		
30	→ $-$ →	
25		17

e

2		
6	→ $+$ →	13
10		

f

22		
25	→ $-$ →	21
29		

6 Copy and complete these function machines.

a

3		12
5	→ →	14
6		

b

10		5
27	→ →	22
22		

c

1		4
8	→ →	32
12		

d

16		2
24	→ →	3
40		

e

4		
9	→ →	18
12		24

f

24		18
29	→ →	
33		27

explanation 3

7 a Use the function ‘multiply by 2’ to complete this sequence table.

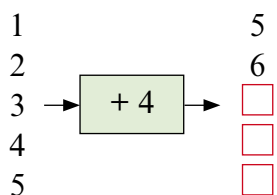
1		2
2		4
3	→ $\times 2$ →	
4		
5		

Term	1st	2nd	3rd	4th	5th
Value	2	4			

b What is the 100th term in this sequence?

c Is 30 in this sequence? Explain how you know.

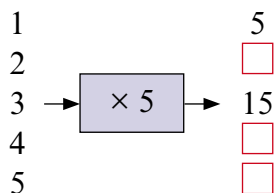
- 8 a** Use the function ‘add 4’ to complete this sequence table.



Term	1st	2nd	3rd	4th	5th
Value	5	6			

- b** What is the 100th term in this sequence?
c Is 3 in this sequence? Explain how you know.

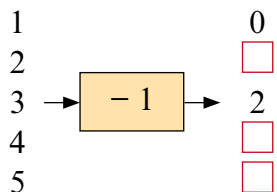
- 9 a** Use the function ‘multiply by 5’ to complete the sequence table.



Term	1st	2nd	3rd	4th	5th
Value	5		15		

- b** What is the 100th term in this sequence?
c Is 53 in this sequence? Explain how you know.

- 10 a** Use the function ‘subtract 1’ to complete the sequence table.



Term	1st	2nd	3rd	4th	5th
Value	0		2		

- b** What is the 100th term in this sequence?
c Is 29 in this sequence? Explain how you know.