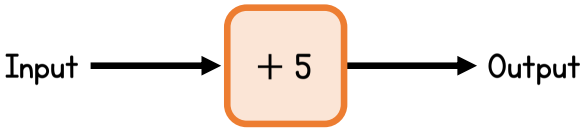
Year 6

Algebra

Name _____

1 Here is a function machine.



Complete the sentences.

When the input is 7, the output is _____

When the input is _____, the output is 7

2 marks

2 If ★ = 6 and ☺ = 8, find the total of each row and column.

★	★	☺	
★	♥	☺	26
♥	♥	☺	
	30		

3 marks

3 c and d represent positive integer variables.

$c + d = 5$

Complete the table to show possible values of c and d.

c	d

2 marks

4 Solve the equations.

$x + 3 = 9$

$x =$ _____

1 mark

$b - 3 = 9$

$b =$ _____

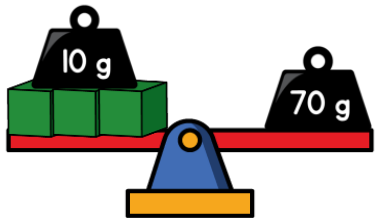
1 mark

$3c = 12$

$c =$ _____

1 mark

5 Hassan is balancing objects.



What is the mass of one of the cubes?

_____ g

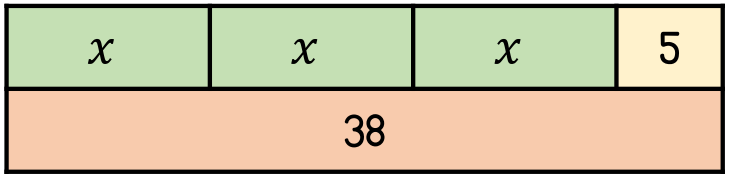
2 marks

6 If $p = 7$, what is the value of $2p + 9$?

_____

1 mark

7 Nina uses a bar model to solve $3x + 5 = 38$



Solve the equation $3x + 5 = 38$

$x =$ _____

2 marks

8 Solve $10y - 3 = 77$

$y =$ _____

2 marks

9 Dexter is selling ice-creams.
He uses this formula to work out the price.

$$\text{Price} = £1.50s + £0.40t$$

Where s is the number of scoops and t is the number of toppings.

Work out the cost of an ice-cream with 2 scoops and 3 toppings.

£ _____

1 mark

Libby buys an ice-cream that costs £2.30
How many scoops does she have?

_____

1 mark

How many toppings does she have?

_____

1 mark

Circle how confident you feel with algebra.

1	2	3	4	5
Not confident				Very confident