



Aberdare Community School  
Mathematics Department

WJEC GCSE

**Higher – Non Calculator**  
Algebra

# Function machines

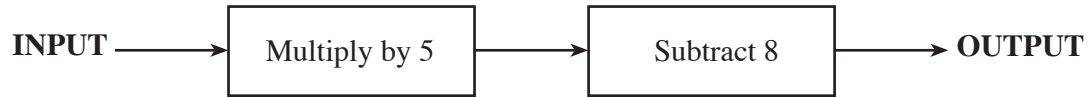
Name: .....

Set: .....

Date: .....

Teacher: .....

1. (a) The diagram shows a number machine.



- (i) Write down the OUTPUT when  $x$  is INPUT into the number machine.

.....  
.....

[1]

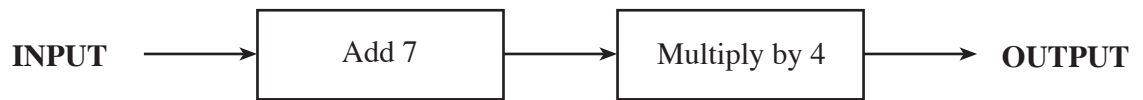
- (ii) Find the INPUT when  $y$  is the OUTPUT from the number machine.

.....  
.....

[1]

1.

(b)



Write down the OUTPUT when  $n$  is INPUT into the number machine.

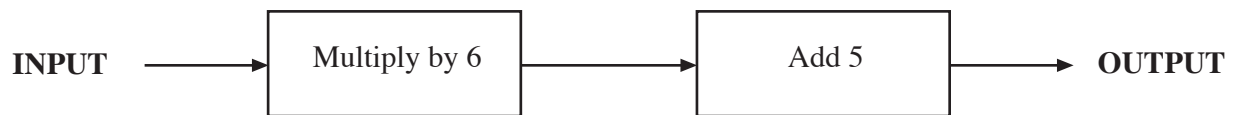
.....

.....

[2]

4.

(b) The diagram below shows a number machine.



Write down the OUTPUT when the INPUT is  $n$ .

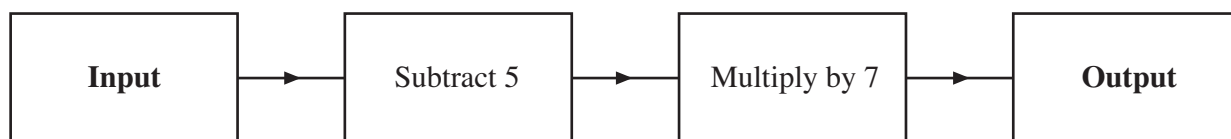
.....

.....

[1]

5.

(c) The diagram shows a number machine.



(i) Find the **Input** to the number machine when the **Output** is  $-49$ .

.....

.....

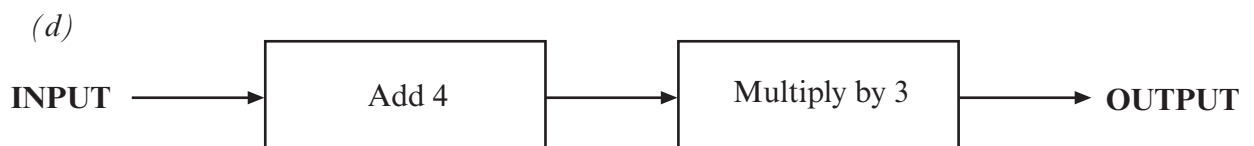
(ii) Write down the **Output** from the number machine when the **Input** is  $n$ .

.....

.....

[3]

6.



Write down the **OUTPUT** when the **INPUT** is  $n$ .

.....

.....

.....

3. (a) The diagram shows a number machine.



(i) Write down the **OUTPUT** when the **INPUT** is  $x$ .

.....  
.....

(ii) Find the **INPUT** when the **OUTPUT** is  $y$ .

.....  
.....  
.....

[3]