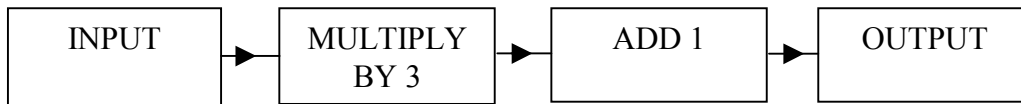


## BASIC FLOWCHARTS

1)

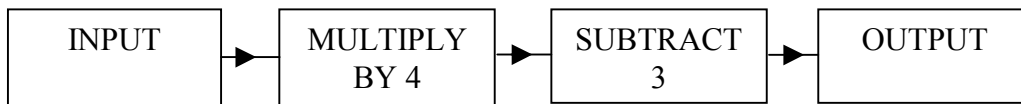


a) Copy and complete the following table to show the inputs and their various outputs from the above flowchart.

INPUT	OUTPUT
1	4
2	7
3	
4	
	25
	31

b) If we write the input as the number  $x$ , what is the value of the output?  
**Write your answer as a formula involving  $x$ .**

2)

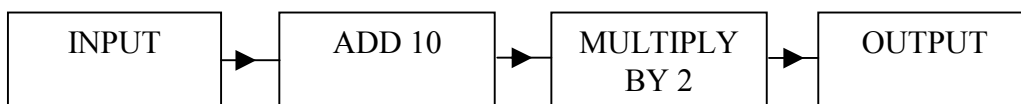


a) Copy and complete the following table to show the inputs and their various outputs from the above flowchart.

INPUT	OUTPUT
1	1
2	5
3	
4	
	25
	45

b) If we write the input as the number  $x$ , what is the value of the output?  
**Write your answer as a formula involving  $x$ .**

3)



a) Copy and complete the following table to show the inputs and their various outputs from the above flowchart.

INPUT	OUTPUT
1	22
2	24
3	
4	
	30
	38

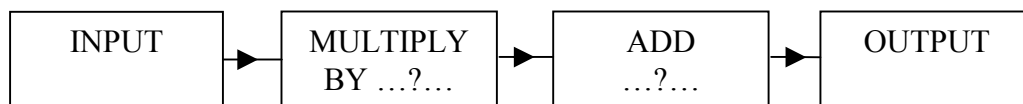
b) If we write the input as the number  $x$ , what is the value of the output?  
**Write your answer as a formula involving  $x$ .**

- 4) a) The following table of results is incomplete.

INPUT	OUTPUT
1	7
2	10
3	13
4	16
5	
6	

Complete the two missing values in the table.

- b) The flowchart has the following form.



Complete the flowchart by finding the two missing values.

- c) If we write the input as the number  $x$ , what is the value of the output?

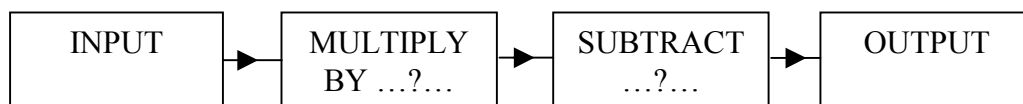
Write your answer as a **formula** involving  $x$ .

- 5) a) The following table of results is incomplete.

INPUT	OUTPUT
1	2
2	7
3	12
4	17
5	
6	

Complete the two missing values in the table.

- b) The flowchart has the following form.

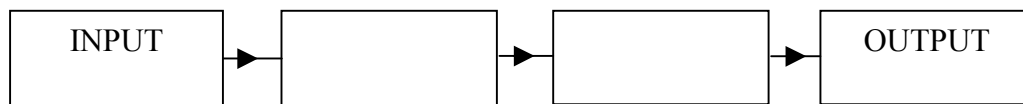


Complete the flowchart by finding the two missing values.

- c) If we write the input as the number  $x$ , what is the value of the output?

Write your answer as a **formula** involving  $x$ .

- 6) The following flowchart produces the table of values below.



INPUT	OUTPUT
1	2
2	2.5
3	3
4	3.5
5	4

Complete the flowchart.

ANSWERS.

1) a)

INPUT	OUTPUT
1	4
2	7
3	<b>10</b>
4	<b>13</b>
<b>8</b>	25
<b>10</b>	31

b)  $3x + 1$ .

2) a)

INPUT	OUTPUT
1	1
2	5
3	<b>9</b>
4	<b>13</b>
<b>7</b>	25
<b>12</b>	45

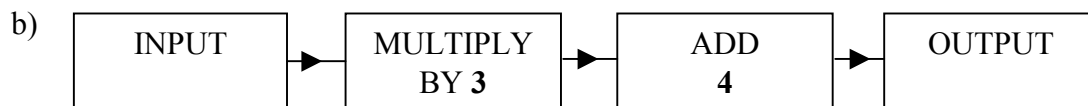
b)  $4x - 3$ .

3) a)

INPUT	OUTPUT
1	22
2	24
3	
4	
	30
	38

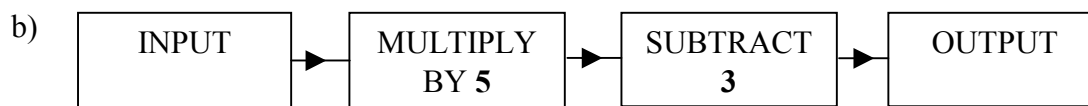
b)  $2(x + 10)$  or  $(x + 10) \times 2$  or  $2x + 20$  etc.

4) a) Missing values are 19 and 22.



c)  $3x + 4$ .

5) a) Missing values are 22 and 27.



c)  $5x - 3$ .

6) 'Divide by 2' and 'Add 1.5'.