

Tables and Sequences

1) Each of the following tables is based on a rule " $x \rightarrow ax \pm b$ ", where a and b are certain numbers which you need to work out. Copy and complete each table.

$x \rightarrow$	
0 \rightarrow	5
1 \rightarrow	7
2 \rightarrow	9
3 \rightarrow	
5 \rightarrow	15
10 \rightarrow	
100 \rightarrow	

$x \rightarrow$	
0 \rightarrow	
1 \rightarrow	1
2 \rightarrow	7
3 \rightarrow	13
5 \rightarrow	
10 \rightarrow	
100 \rightarrow	

$x \rightarrow$	
0 \rightarrow	
1 \rightarrow	11
2 \rightarrow	
3 \rightarrow	19
5 \rightarrow	
10 \rightarrow	
100 \rightarrow	

$x \rightarrow$	
0 \rightarrow	
1 \rightarrow	
2 \rightarrow	4
3 \rightarrow	
5 \rightarrow	13
10 \rightarrow	
100 \rightarrow	

$x \rightarrow$	
0 \rightarrow	
1 \rightarrow	8
2 \rightarrow	
3 \rightarrow	
5 \rightarrow	
10 \rightarrow	53
100 \rightarrow	

Write down any rules you find which help you to solve these problems.

2) Each of the following sequences is based on a rule " $n^{\text{th}} \text{ term} = an \pm b$ ", where a and b are numbers you need to work out. Complete the missing terms in each sequence, and work out the rule for the n^{th} term of the sequence

(a) Term No: 1st 2nd 3rd 4th 5th 6th 7th 10th 100th nth
 Term: 2 5 8 11 14

(b) Term No: 1st 2nd 3rd 4th 5th 6th 7th 10th 100th nth
 Term: 7 11 15 19 23

(c) Term No: 1st 2nd 3rd 4th 5th 6th 7th 10th 100th nth
 Term: 5 12 19 26 33