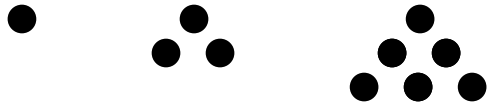
Which grade are you…..? Sequences : Foundation

Grade G

1 Draw the next diagram in this sequence.



Grade F

2 Write down the **5th, 8th** and **10th** terms in the following sequences.

a) 0, 5, 10, 15,…….

b) 2, 5, 8, 11, ……

Grade E

3 Write down the **term-to-term** rule for the following sequences.

a) 3, 7, 10, 13,..

b) 1, 2, 4, 8, 16, …..

c) 1, 2, 4, 7, 11, …..

Grade D

4 Write down the missing terms in the sequence 3, …., -1, -3, ….., ……, -9 ,

5 Write down the first three terms of the sequence whose nth term is $n^2 - 5$

6 The nth term of a sequence is 4n + 3.
Alice says that the 10th term is double the 5th term.
Is she correct? Show how you decide.

Grade C

7 Write down the nth term for each of the following sequences

a) 4, 11, 18, 25, …..

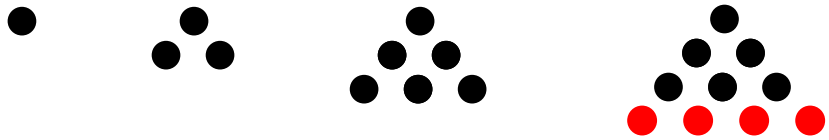
b) 6, 9, 12, 15, …..

c) 95, 90, 85 , 80, …….

d) -5, 0, 5, 10 ,…..

Which grade are you…..? **Sequences : Foundation**

ANSWERS

1	Draw the next diagram in this sequence.  ✓	Grade G
2	Write down the **5th, 8th** and **10th** terms in the following sequences. a) 0, 5, 10, 15,……. 20 , 35 and 45 ✓✓✓ b) 2, 5, 8, 11, …… 14 , 23 and 29 ✓✓✓	Grade F
3	Write down the **term-to-term** rule for the following sequences. a) 3, 7, 10, 13,.. add 4 ✓✓ b) 1, 2, 4, 8, 16, ….. multiply by 2 ✓✓ c) 1, 2, 4, 7, 11, ….. add consecutive integers ✓✓	Grade E
4	Write down the missing terms in the sequence 3, 1, -1, -3, -5, -7, -9 , ✓✓✓	Grade D
5	Write down the first three terms of the sequence whose nth term is $n^2 - 5$ -4, -1, 4 ✓✓✓	
6	The nth term of a sequence is 4n + 3. Alice says that the 10th term is double the 5th term. Is she correct? Show how you decide. 10th term = 43 5th term = 23 ✓ 23 x 2 = 46 not 43✓ No✓	
7	Write down the nth term for each of the following sequences a) 4, 11, 18, 25, ….. 7n - 3 ✓✓ b) 6, 9, 12, 15, ….. 3n + 3 ✓✓ c) 95, 90, 85 , 80, ……. 100 - 5n ✓✓ d) -5, 0, 5, 10 ,….. 10 - 5n ✓✓	Grade C

30 marks