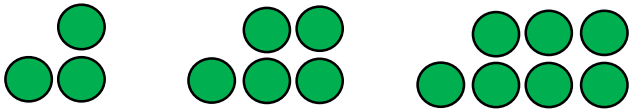
Year 7

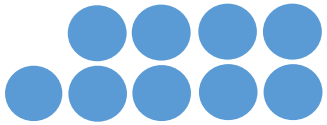
Sequences

Answers

1 Here are the first three terms in a sequence.



Draw the next term in the sequence.



How many circles will make up the 5th term?

11

1 mark

2 Find the next two terms in each of the linear sequences.

51, 47, 43, 39, 35

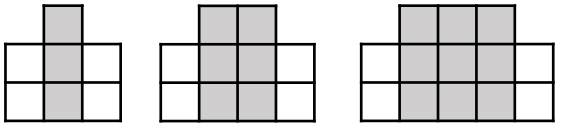
1 mark

1500, 2600, 3700, 4800, 5900

7.25, 7.45, 7.65, 7.85, 8.05,

3 marks

3



How many grey squares would there be in the 4th term of this sequence?

12

1 mark

How many white squares would there be in the 19th term of the sequence?

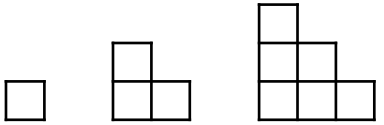
4

1 mark

4 Tick the sequence that is linear.

1, 4, 16, 64, 256 ☐

8.3, 6.3, 4.3, 2.3, 0.3 ☑

 ☐

1 mark

5 Create two **different** linear sequences that both start with the number 65

65, _____, _____, _____

65, _____, _____, _____

Any sequences that goes up or down by a constant difference.

2 marks

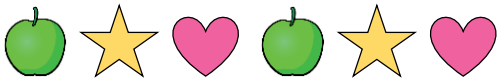
6 Find the next two terms in these geometric sequences.

5, 10, 20, 40, 80

9000, 900, 90, 9, 0.9

2 marks

7 This pattern repeats every three terms as shown.



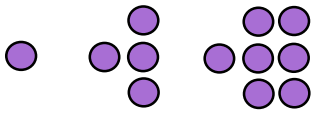
What will be the 9th term in the pattern?

1 mark

What will be the 31st term in the pattern?

1 mark

8 Complete the table to represent the sequence.



Term	1	2	3	4
Number of circles	1	4	7	10

1 mark

Would the points of the graph of this sequence lie on a straight line? Explain your answer.

Yes e.g.
The sequence is increasing by 3 each time, so it is a linear sequence .

1 mark

9 H Find the missing terms in these linear sequences.

3, 6, 9

1, 3, 5, 7, 9

2 marks

10 H Find the next two terms in this sequence.

3, 6, 10, 15, 21, 28

1 mark

11 H These numbers make up two linear sequences.

1	3	4	5	7	7	10	13

What are the two linear sequences?

1st 1, 3, 5, 7

2nd 4, 7, 10, 13

1 mark

Total marks