

Generating Sequences





CHECK YOUR ANSWERS



| 1 | The <i>n</i> th term of a sequence is $5n + 3$ (a) Work out the 3^{rd} term of the sequence | |
|---|--|-----------------------------------|
| | (a) Work out the 3 ⁻² term of the sequence | |
| | | |
| | (b) Work out the 5 th term of the sequence | (1) |
| | | |
| | | |
| | (c) Work out the 9 th term of the sequence | (1) |
| | | |
| | (d) Work out the 12 th term of the sequence | (4) |
| | (a) Work out the 12 term of the sequence | (1) |
| | | |
| | | (1) |
| | | (Total for Question 1 is 4 marks) |
| | | |

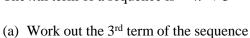


| 2 | The <i>n</i> th term of a sequence is $3n-2$ | |
|-------------|--|---------------------------------------|
| | (a) Work out the 2 nd term of the sequence | |
| | (b) Work out the 8 th term of the sequence | (1) |
| | | (1) (Total for Question 2 is 2 marks) |
| 2 | The why term of a sequence is $2n - 10$ | (Total for Question 2 is 2 marries) |
| 3 | The <i>n</i> th term of a sequence is $2n-10$ (a) Work out the 1 st term of the sequence | |
| | (b) Work out the 9 th term of the sequence | (1) |
| 1 st | | |
| _ | | (Total for Question 3 is 2 marks) |

| 4 | The <i>n</i> th term of a sequence is $4n + 11$ | |
|-----|--|---|
| | (a) Work out the 5 th term of the sequence | У |
| | (b) Work out the 10^{th} term of the sequence (1) | |
| | (1) | |
| — | (Total for Question 4 is 2 marks) | |
| 5 | The <i>n</i> th term of a sequence is $10n-3$ | 1 |
| | (a) Work out the 8 th term of the sequence | J |
| | (b) Work out the 20 th term of the sequence | |
| 1st | | |
| _ | (Total for Question 5 is 2 marks) | _ |

| 6 | The <i>n</i> th term of a sequence is $20-3n$ | |
|----|---|--|
| | (a) Work out the 1 st term of the sequence | |
| | (b) Work out the 7 th term of the sequence | (1) |
| | | (1) (Total for Question 6 is 2 marks) |
| _ | | |
| 7 | The <i>n</i> th term of a sequence is $8-n$ (a) Work out the 5 th term of the sequence | |
| | (b) Work out the 12 th term of the sequence | (1) |
| 15 | | (1) (Total for Question 7 is 2 marks) |
| | | (Total for Question 7 is 2 marks) |

| 8 | The <i>n</i> th term of a sequence is | $n^2 + 3$ |
|---|---------------------------------------|-----------|



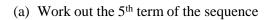


(b) Work out the 4th term of the sequence

(1)

(Total for Question 8 is 2 marks)

9 The *n*th term of a sequence is $n^2 - 30$





(b) Work out the 8^{th} term of the sequence

(1)

1st

(Total for Question 9 is 2 marks)





| 10 The <i>n</i> th term of a sequence is $2n^2$ | |
|--|--|
| (a) Work out the 3 rd term of the sequence | |
| (b) Work out the 5 th term of the sequence | (1) |
| | (1) (Total for Question 10 is 2 marks) |
| 11 The <i>n</i> th term of a sequence is $n^2 - 2n$ | (Total for Question to is 2 marris) |
| (a) Work out the 3 rd term of the sequence | |
| (b) Work out the 4 th term of the sequence | (2) |
| 1st | (Total for Question 11 is 4 marks) |



12 The *n*th term of a sequence is 7n-1Work out the first term in the sequence that is greater than 50



(Total for Question 12 is 2 marks)

13 The *n*th term of a sequence is 9n + 20Work out the first term in the sequence that is greater than 100



(Total for Question 13 is 2 marks)

14 The *n*th term of a sequence is 15-4n Work out the first term in the sequence that is negative.





(Total for Question 14 is 2 marks)



15 The *n*th term of a sequence is 3n - 13Work out the first term in the sequence that is positive.



(Total for Question 15 is 2 marks)

16 The nth term of a sequence **A** is 3n + 8

 $n^2 + k$ The nth term of a sequence **B** is



The 5^{th} term of sequence **A** is equal to the 4^{th} term of sequence **B**.

Work out the value of k.



 $k = \underline{\hspace{1cm}}$ (Total for Question 16 is 3 marks)

