

Name: _____

Level 2 Further Maths

Sequences



Corbettmaths

Ensure you have: Pencil or pen

Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

Revision for this topic

www.corbettmaths.com/more/further-maths/



1. The n th term of a sequence is $\frac{6n - 3}{10n}$

(a) Which term in the sequence is equal to 0.58?

.....
(2)

(b) Work out the difference between the 5th and 12th terms

.....
(2)

2. Here is a linear sequence

1924 1849 1774

How many terms in the sequence are positive?

.....
(2)

3. The first three terms in a sequence are

$$\frac{5}{9}, \frac{11}{14}, \frac{17}{19}, \dots$$

Write down the n th term for the sequence

.....
(3)

4. The n th term of a sequence is $\frac{2n + 1}{3n - 5}$

Write down the limiting value of the sequence $n \rightarrow \infty$

.....
(1)

5. The n th term of a sequence is $\frac{1 - 9n}{2n + 4}$

Write down the limiting value of the sequence $n \rightarrow \infty$

.....
(1)

6. The n th term of a sequence is $\frac{240 - 8n}{70 + 4n}$

(a) Work out the term in the sequence that is equal to 0

.....
(1)

(b) Write down the limiting value of the sequence as $n \rightarrow \infty$

.....
(1)

7. The n th term of a sequence is $\frac{3n}{8n + 13}$

(a) Work out the position of the term that has a value of $\frac{1}{3}$

.....
(2)

(b) Write down the limiting value of $\frac{3n}{8n + 13}$ as $n \rightarrow \infty$

.....
(1)

8. The first two term terms in a linear sequence are $5 + 3\sqrt{6}$ and $\sqrt{6}$

What is the fifth term in the sequence?

.....
(3)

9. The first term of a sequence is $5 - 2a$

The term-to-term rule of the sequence is subtract $4a$ and then multiply by 2

The fourth term of the sequence is 58

Work out the second term of the sequence.

.....
(4)

10. The n th term of sequence A is $\frac{n+2}{2n-3}$

The n th term of sequence B is $\frac{3n-14}{n+5}$

The q th term in sequence A is the same as the q th term in sequence B.

Work out the value of q

.....
(4)