

Q1 June 2017

25 Here are the first six terms of an arithmetic sequence.

3 8 13 18 23 28

(a) Find an expression, in terms of n , for the n th term of this sequence.

(2)The n th term of a different sequence is $3n^2$

Nathan says that the 4th term of this sequence is 144

(b) Is Nathan right?

Show how you get your answer.

(1)

(Total for Question 25 is 3 marks)

Q2 June 2019

28 Here are the first five terms of a Fibonacci sequence.

3 3 6 9 15

(a) Write down the next two terms of the sequence.

..... , ...
(1)

The first three terms of a different Fibonacci sequence are

a a $2a$

(b) Find the 6th term of this sequence.

.....
(2)

(Total for Question 28 is 3 marks)

- 9 Here are the first five terms of a sequence.

3 8 13 18 23

- (a) Write down the next term of this sequence.

.....
(1)

- (b) Write down the ratio of the second term to the fourth term.
Give your ratio in its simplest form.

.....
(2)

(Total for Question 9 is 3 marks)

Q4 Nov 2018

- 9 (a) The n th term of a sequence is $3n + 4$

Explain why 21 is not a term of this sequence.

.....
.....
(2)

- (b) Here are the first three terms of a different sequence.

1 2 4

Write down two numbers that could be the 4th term and the 5th term of this sequence.
Give the rule you have used to get your numbers.

.....
.....
.....
(2)

(Total for Question 9 is 4 marks)

Q5 Nov 2019

26 The n th term of a sequence is $2n^2 - 1$

The n th term of a different sequence is $40 - n^2$

Show that there is only one number that is in both of these sequences.

(Total for Question 26 is 3 marks)

20 Here are the first five terms of an arithmetic sequence.

7 13 19 25 31

(a) Find an expression, in terms of n , for the n th term of this sequence.

.....
(2)

The n th term of a different sequence is $8 - 6n$

(b) Is -58 a term of this sequence?

You must show how you get your answer.

(2)

(Total for Question 20 is 4 marks)