Generating Sequences

1 The *n*th term of a sequence is $5n + 3$

(a) Work out the 3rd term of the sequence

....

(1)

(b) Work out the 5th term of the sequence

....

(1)

(c) Work out the 9th term of the sequence

....

(1)

(d) Work out the 12th term of the sequence

....

(1)

(Total for Question 1 is 4 marks)

1

2 The *n*th term of a sequence is $3n - 2$

(a) Work out the 2nd term of the sequence

....
(1)

(b) Work out the 8th term of the sequence

....
(1)

(Total for Question 2 is 2 marks)

3 The *n*th term of a sequence is $2n - 10$

(a) Work out the 1st term of the sequence

....
(1)

(b) Work out the 9th term of the sequence

....
(1)

(Total for Question 3 is 2 marks)

Solutions

4 The nth term of a sequence is $\quad 4n + 11$

(a) Work out the 5th term of the sequence

....

(1)

(b) Work out the 10th term of the sequence

....

(1)

(Total for Question 4 is 2 marks)

5 The nth term of a sequence is $\quad 10n - 3$

(a) Work out the 8th term of the sequence

....

(1)

(b) Work out the 20th term of the sequence

....

(1)

(Total for Question 5 is 2 marks)

1st

3

6 The *n*th term of a sequence is $20 - 3n$

(a) Work out the 1st term of the sequence

....
(1)

(b) Work out the 7th term of the sequence

....
(1)

(Total for Question 6 is 2 marks)

7 The *n*th term of a sequence is $8 - n$

(a) Work out the 5th term of the sequence

....
(1)

(b) Work out the 12th term of the sequence

....
(1)

(Total for Question 7 is 2 marks)

8 The nth term of a sequence is $n^2 + 3$

(a) Work out the 3rd term of the sequence

....
(1)

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

....
(1)

(Total for Question 8 is 2 marks)

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

(a) Work out the 5th term of the sequence

....
(1)

(b) Work out the 8th term of the sequence

....
(1)

(Total for Question 9 is 2 marks)

5

10 The nth term of a sequence is $\quad 2n^2$

   (a) Work out the 3rd term of the sequence

....
(1)

   (b) Work out the 5th term of the sequence

....
(1)

(Total for Question 10 is 2 marks)

11 The nth term of a sequence is $\quad n^2 - 2n$

   (a) Work out the 3rd term of the sequence

....
(2)

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

....
(2)

(Total for Question 11 is 4 marks)

Solutions

12 The nth term of a sequence is $\quad 7n - 1$

Work out the first term in the sequence that is greater than 50

....

(Total for Question 12 is 2 marks)

13 The nth term of a sequence is $\quad 9n + 20$

Work out the first term in the sequence that is greater than 100

....

(Total for Question 13 is 2 marks)

14 The nth term of a sequence is $\quad 15 - 4n$

Work out the first term in the sequence that is negative.

....

(Total for Question 14 is 2 marks)

Solutions

15 The nth term of a sequence is $\quad 3n - 13$

Work 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 $\quad 3n + 8$

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

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

Work out the value of k.

$k = $ ....

(Total for Question 16 is 3 marks)

8