1 The first two terms of a sequence are

<div align="center">2   6   …</div>

1 (a) Michael assumes the sequence is an arithmetic progression.
Using Michael's assumption, work out the next two terms. **[2 marks]**

_____

_____

_____

Answer _____ and _____

1 (b) Jess assumes the sequence is a geometric progression.
Using Jess's assumption, work out the next two terms. **[2 marks]**

_____

_____

_____

Answer _____ and _____

1 (c) Gabby assumes the sequence is a Fibonacci-type sequence.
Using Gabby's assumption, work out the next two terms. **[2 marks]**

_____

_____

_____

Answer _____ and _____

$\frac{}{6}$

2 The first two terms of a geometric progression are

20   10   …

Work out the 4th term. **[2 marks]**

Answer

3 The first two terms of a Fibonacci-type sequence are

2   5   …

Work out the 4th term. **[2 marks]**

Answer

4 The first two terms of a linear sequence are

2   4   …

Work out the 4th term. **[2 marks]**

Answer

5   The first two terms of a Fibonacci-type sequence are

   1   3   …

Work out the 4ᵗʰ term.   **[2 marks]**

Answer

6   The first two terms of an arithmetic progression are

   3   9   …

Work out the 4ᵗʰ term.   **[2 marks]**

Answer

7   The first two terms of a geometric progression are

   8   16   …

Work out the 4ᵗʰ term.   **[2 marks]**

Answer

$\frac{}{12}$

Turn over ►

8 The first three terms of a quadratic sequence are

2   5   10   …

Work out the 4th term of the sequence. **[2 marks]**

Answer _____

9 The first three terms of a quadratic sequence are

5   6   11   …

Work out the 4th term of the sequence. **[2 marks]**

Answer _____

10   The first three terms of a quadratic sequence are

8   18   30   …

Work out the 5th term of the sequence.   **[3 marks]**

Answer

11   The first three terms of a quadratic sequence are

30   22   9   …

Work out the 5th term of the sequence.   **[3 marks]**

Answer

10

Turn over ▶

12   The third and fourth terms of a geometric progression are shown below

...   ...   12   24

Work out the 1st term.   **[2 marks]**

Answer _____

13   The third and fourth terms of an arithmetic progression are shown below

...   ...   5   15

Work out the 1st term.   **[2 marks]**

Answer _____

14   The third and fourth terms of a Fibonacci-style sequence are shown below

...   ...   10   16

Work out the 1st term.   **[2 marks]**

Answer _____

15 Match the name to the correct sequence.
One has been done for you.

[3 marks]

Sequence

Name

	2 4 6 8 10

Linear Sequence

2 4 8 16 32

Quadratic Sequence

2 4 6 10 12

Fibonacci Sequence

2 4 6 12 24

Geometric Sequence

2 4 8 14 22

2 4 6 10 16

9

© 2024 1stclassmaths   Solutions