

# Interleaved: sequences

1

Find the  $n$ th term of 5, 9, 13, 17, ...

Which method?

Linear

Quadratic

Geometric

the difference is 4 each time:  $4n$ , then

$4n + 1$

Answer 

$4n + 1$

2

Find the next two terms of 3, 6, 12, 24, ...

Which method?

Linear

Quadratic

Geometric

Answer \_\_\_\_\_

3

Find the  $n$ th term of 2, 5, 10, 17, ...

Which method?

Linear

Quadratic

Geometric

Answer \_\_\_\_\_

4

Find the  $n$ th term of 20, 17, 14, 11, ...

Which method?

Linear

Quadratic

Geometric

Answer \_\_\_\_\_

5

Find the  $n$ th term of 3, 9, 19, 33, ...

Which method?

Linear

Quadratic

Geometric

Answer \_\_\_\_\_

6

Find the 7th term of 80, 40, 20, 10, ...

Which method?

Linear

Quadratic

Geometric

Answer \_\_\_\_\_

7

Is 100 a term of 7, 13, 19, 25, ... Explain how you know.

Which method?

Linear

Quadratic

Geometric

Answer \_\_\_\_\_

8

Find the 10th term of 4, 7, 12, 19, ...

Which method?

Linear

Quadratic

Geometric

Answer \_\_\_\_\_

# Interleaved: sequences *further practice*

9

Find the  $n$ th term of 2, 6, 18, 54, ...

Answer \_\_\_\_\_

10

Find the  $n$ th term of 1, 6, 15, 28, ...

Answer \_\_\_\_\_

11

The 4th term of a linear sequence is 23. The 10th term is 47. Find the  $n$ th term.

Answer \_\_\_\_\_

12

In a geometric sequence the 1st term is 4 and the 3rd term is 36. All the terms are positive. Find the 2nd term.

Answer \_\_\_\_\_

13

Which term of 0, 3, 8, 15, ... is 99?

Answer \_\_\_\_\_

14

A floor pattern uses 6, 11, 16, 21 tiles in the first four patterns. How many tiles are in pattern 30?

Answer \_\_\_\_\_

15

The 2nd term of a geometric sequence is 10. The 3rd term is 50. Find the 1st term.

Answer \_\_\_\_\_

16

Mia says 1, 4, 9, 16, ... is geometric because the terms keep getting bigger by multiplying. Explain why she is wrong, and give the  $n$ th term.

Answer \_\_\_\_\_