Q1. (June 2018 v1)

4 The nth term of a sequence is $5n - 3$.

Write down the first three terms of the sequence.

..... , ... , ... [1]

Q2. (June 2018 v2)

6 Here is a sequence.

a, 13, 9, 3, –5, –15, b, …

Find the value of a and the value of b.

$a =$ .....

$b =$ ..... [2]

Q3. (June 2019 v1)

16 These are the first four terms of a sequence.

5 8 11 14

(a) Write down the next term.

..... [1]

(b) Find an expression, in terms of n, for the nth term.

..... [2]

Q4. (June 2019 v3)

21 **(a)** Write down the next term in each sequence.

(i) 12, 7, 2, −3, −8, ... [1]

(ii) 4, 7, 13, 25, 49, ... [1]

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

5, 8, 11, 14, …

..... [2]

Q5. (June 2020 v1)

12 **(a)** The nth term of a sequence is $60 - 8n$.

Find the largest number in this sequence.

..... [1]

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

12 19 26 33 40

Find an expression for the nth term of this sequence.

..... [2]

Q6. (June 2021 v1)

12 The nth term of a sequence is $6n-4$.

(a) Write down the first 3 terms in this sequence.

....., ..., ... [1]

(b) The kth term of this sequence is 422.

Work out the value of k.

$k =$ ..... [2]

Q7. (June 2021 v3)

17 These are the first four terms of a sequence.

7 11 15 19

Find the nth term.

..... [2]

Q8. (June 2022 v1)

20 22, 17, 12, 7, 2, …

(a) Find the next term of the sequence.

..... [1]

(b) Find the nth term of the sequence.

..... [2]

Q9. (June 2022 v2)

15 The nth term of a sequence is $n^2 + 12$.

(a) Find the first three terms of this sequence.

....., ..., ... [2]

(b) Is 5196 a term in this sequence?
Give a reason for your decision.

..... because .....

..... [2]

Q10. (June 2022 v3)

16 The nth term of a sequence is $n^2 - 1$.

Find the first three terms of this sequence.

..... , ... , ... [2]

Q11. (June 2023 v1)

17 **(a)** The nth term of a sequence is $10 - n^2$.

Write down the first three terms of this sequence.

..... , ... , ... [2]

(b) These are the first four terms of another sequence.

7 10 13 16

Find an expression for the nth term of this sequence.

..... [2]

Q12. (June 2024 v1)

12 The table shows some information about two sequences.

	nth term	5th term
Sequence A	$60 - 4n$	
Sequence B	$n^2 - 300$	

Complete the table.

[2]

Q13. (June 2024 v1)

24 These are the first five terms of a sequence.

11 18 25 32 39

Find an expression for the nth term of the sequence.

..... [2]

Q14. (June 2024 v2)

11 These are the first four terms of a sequence.

23 17 11 5

(a) Write down the next two terms.

....., ... [2]

(b) Find the nth term.

..... [2]

Q15. (June 2024 v3)

10 **(a)** These are the first four terms of a sequence.

3 10 17 24

(i) Write down the next term.

..... [1]

(ii) Write down the term to term rule for continuing the sequence.

..... [1]

(b) These are the first four terms of another sequence.

16 14 11 7

Write down the next two terms of this sequence.

..... , ... [2]

Q16. (June 2025 v1)

9 **(a)** These are the first four terms of a sequence.

33 26 19 12

(i) Write down the term-to-term rule for this sequence.

..... [1]

(ii) Work out the next two terms in this sequence.

..... , ... [2]

(b) These are the first four terms of another sequence.

19 23 27 31

Find the nth term.

..... [2]

Q17. (June 2025 v3)

5 Find the next term in each sequence.

(a) 1, 5, 10, 16, 23, …

..... [1]

(b) 1, 2, 4, 8, 16, …

..... [1]

Q18. (Nov 2018 v1)

19 These are the first five terms in a sequence.

8 11 14 17 20

(a) Find the next term.

..... [1]

(b) Find an expression for the nth term.

..... [2]

Q19. (Nov 2018 v2)

14 **(a)** The expression for the nth term of a sequence is $5n^2$.

Work out the third term in this sequence.

..... [1]

(b) These are the first five terms of a sequence.

-4 2 8 14 20

Find an expression for the nth term of this sequence.

..... [2]

Q20. (Nov 2020 v2)

14 These are the first four terms of a sequence.

17 10 3 −4

(a) **(i)** Find the next term.

..... [1]

(ii) Write down the term to term rule for continuing this sequence.

..... [1]

(b) These are the first four terms of a different sequence.

−2 2 6 10

Find an expression for the nth term.

..... [2]

Q21. (Nov 2021 v1)

12 **(a)** 7, 13, 19, 25, …

Find the next term in this sequence.

..... [1]

(b) 30, 26, 22, 18, …

Write down the term to term rule for this sequence.

..... [1]

(c) −1, 1, 3, 5, …

Find the nth term for this sequence.

..... [2]

Q22. (Nov 2021 v2)

17 These are the first four terms of a sequence.

3 10 17 24

(a) Write down the next term.

..... [1]

(b) Write down the term to term rule.

..... [1]

(c) Find the nth term.

..... [2]

(d) Find the 40th term.

..... [2]

Q23. (Nov 2021 v3)

14 **(a)** These are the first four terms of a sequence.

17 23 29 35

Find the next term.

..... [1]

(b) These are the first four terms of a different sequence.

3 −1 −5 −9

(i) Find the next term in this sequence.

..... [1]

(ii) Find the *n*th term.

..... [2]

Q24. (Nov 2022 v1)

17 **(a)** 3, 9, 27, 81, …

Write down the term to term rule for this sequence.

..... [1]

(b) 13, 17, 21, 25, …

Find the *n*th term of this sequence.

..... [2]

Q25. (Nov 2022 v2)

12 **(a)** These are the first five terms of a sequence.

27 26 23 18 11

Find the next two terms in the sequence.

..... , ... [2]

(b) These are the first five terms of a different sequence.

3 10 17 24 31

Find the nth term.

..... [2]

Q26. (Nov 2023 v2)

3 These are the first four terms in a sequence.

−3 4 11 18

(a) Find the next term.

..... [1]

(b) Explain how you worked out your answer.

..... [1]

Q27. (Nov 2024 v1)

10 **(a)** These are the first four terms of a sequence.

10 16 22 28

Write down the next term in the sequence.

..... [1]

(b) The term to term rule for another sequence is multiply by 3 and subtract 1.
The fourth term in the sequence is 68.

Find the third term in the sequence.

..... [2]

Q28. (Nov 2024 v3)

6 These are the first four terms of a sequence.

19 26 33 40

(a) **(i)** Find the next term.

..... [1]

(ii) Write down the term to term rule for this sequence.

..... [1]

(b) These are the first four terms of another sequence.

−1 2 5 8

Find the nth term of this sequence.

..... [2]

Q29. (Nov 2025 v1)

7 These are the first four terms of a sequence.

9 5 1 −3

(a) Find the next term.

..... [1]

(b) Explain how you worked out your answer.

..... [1]

Q30. (Nov 2025 v2)

27 **(a)** These are the first four terms of a sequence.

2 8 14 20

Find the nth term of this sequence.

..... [2]

(b) The nth term of a different sequence is $n^2 + 10$.

Find the first three terms of this sequence.

....., ..., ... [2]

Q31. (Nov 2025 v3)

21 These are the first four terms of a sequence.

−6 1 8 15

(a) Write down the next term.

..... [1]

(b) Write down the term-to-term rule.

..... [1]

(c) **(i)** Find the nth term.

..... [2]

(ii) Is 688 a term in this sequence?

Explain how you decide.

..... because .....

..... [2]