

n^{th} term rules of sequences

①

Write down, in terms of n , the n th term of each of the following sequences.

(a) 7 14 21 28

7 7 7 7

$$7n$$

[1]

(b) 3 8 13 18

5 5 5

$$5n - 2$$

[2]

②

Write down, in terms of n , the n th term of each of the following sequences.

(a) 8 16 24 32 40

8 8 8

$$8n$$

[1]

(b) 2 9 16 23 30

7 7 7

$$7n - 5$$

[2]

③

Write down the n th term of each of the following sequences.

(a) 4, 8, 12, 16, 20,

4 4 4 4

$$4n$$

[1]

(b) 1, 7, 13, 19, 25,

6 6 6

$$6n - 5$$

[2]

④

Write down, in terms of n , the n th term of the following sequence.

8 13 18 23

5 5 5

$$5n + 3$$

[2]

5

Write down, in terms of n , the n th term of each of the following sequences.

(a) 9 18 27 36

9 9 9 $9n$

[1]

(b) 1 8 15 22

7 7 7 $7n - 6$

[2]

6

Write down, in terms of n , the n th term in each of the following sequences.

(a) 2, 8, 14, 20, 26, . . .

6 6 6 $6n - 4$

[2]

(b) 1, 4, 9, 16, 25, . . .

n^2

[1]

(c) 4, 16, 36, 64, 100, . . .

$4n^2$

[1]

7

(a) Write down, in terms of n , the n th term of each of the following sequences.

(i) $\underline{2} \times \underline{4}$ $\underline{3} \times \underline{8}$ $\underline{4} \times \underline{12}$ $\underline{5} \times \underline{16}$

$(1n+1) \times 4n$

[2]

(ii) 4 10 16 22 28

6 6 6 $6n - 2$

[2]

(b) Write down the 2nd and 3rd terms of the sequence whose n th term is $n^2 - 4$.

2nd term = $2^2 - 4 = 4 - 4 = 0$

3rd term = $3^2 - 4 = 9 - 4 = 5$

[2]