

## 102. Finding the $n$ th Term of a Sequence

### Practice Questions

1. Find the  $n$ th term of the sequence: 3, 6, 9, 12, 15.
2. Find the  $n$ th term of the sequence: 5, 8, 11, 14, 17.
3. Find the  $n$ th term of the sequence: 2, 5, 8, 11, 14.
4. Find the  $n$ th term of the sequence: 10, 7, 4, 1, -2.
5. Find the  $n$ th term of the sequence: 4, 9, 14, 19, 24.
6. Find the  $n$ th term of the sequence: 1, 4, 9, 16, 25.
7. Find the  $n$ th term of the sequence: 5, 10, 15, 20, 25
8. Find the  $n$ th term of the sequence: 12, 9, 6, 3, 0.
9. Find the  $n$ th term of the sequence: 7, 14, 21, 28, 35.
10. Find the  $n$ th term of the sequence: 6, 12, 18, 24, 30.

### Scenario Questions

1. A builder lays bricks in a pattern where each row has 3 more bricks than the previous row. The first row has 4 bricks. Find the  $n$ th term for the number of bricks in each row.
2. A theme park charges £5 for the first ticket, £7 for the second, and £9 for the third. Find the  $n$ th term of the price pattern.
3. A school gym adds 4 more seats per row than the previous row. The first row has 6 seats. Find the  $n$ th term of the sequence.
4. A cinema increases ticket prices each year by £3, starting at £10. Find the  $n$ th term of the ticket price.
5. A runner trains by increasing their distance by 2 km each day, starting from 5 km. Find the  $n$ th term for the daily distance.
6. A restaurant adds 5 more tables per month, starting with 10 tables. Find the  $n$ th term of the sequence.
7. A builder installs tiles in a square pattern. The first layer has 1 tile, the second has 4, the third has 9, and so on. Find the  $n$ th term of this pattern.
8. A farm increases its production of eggs each week by 6, starting from 12 eggs. Find the  $n$ th term.
9. A student revises 2 hours in the first week, 5 in the second week, and 8 in the third week. Find the  $n$ th term of the study pattern.
10. A website gains 50 new users in the first month, 100 in the second, and 150 in the third. Find the  $n$ th term for the number of users.

## 102. Finding the nth Term of a Sequence

### Practice Questions

1.  $3n$
2.  $3n + 2$
3.  $3n - 1$
4.  $-3n + 13$
5.  $5n - 1$
6.  $n^2$
7.  $5n$
8.  $-3n + 15$
9.  $7n$
10.  $6n$

### Scenario Questions

1.  $3n + 1$
2.  $2n + 3$
3.  $4n + 2$
4.  $3n + 7$
5.  $2n + 3$
6.  $5n + 5$
7.  $n^2$
8.  $6n + 6$
9.  $3n - 1$
10.  $50n$