

E.g. 5 Find the 13th term in the sequence given by the formula $25 - 15n$.

Working: The 13th term is found when $n = 13$
15th term = $25 - 15 \times 13 = 25 - 195 = -170$

E.g. 6 Decide whether the number 386 is in the sequence 4, 10, 16, 22, 28.
Hint: find the formula for the n th term

Working: Term-to-term rule: $10 - 4 = 6 \Rightarrow 6n$
Term before the first: $4 - 6 = -2$
 $\therefore n$ th term = $6n - 2$
If 386 is in the sequence then $6n - 2 = 386$ is true for an positive, integer value of n :

$$6n = 388 \Rightarrow n = 64\frac{2}{3}$$

Since n is not an integer, 386 is not in the sequence.

Video: [nth term for linear sequences](#)

[Solutions to Starter and E.g.s](#)

Exercise

9-1 class textbook: p389 M12.8 Qu 1ace..., 2, 3, 4, 5, 6, 7, 10, 12, 13, 8, 9
A*-G class textbook: p351 M12.7 Qu 2ace..., 3, 4, 6, 7, 8, 9, 10, 12, 14, 11
9-1 homework book: p131 M12.8 Qu 1-8
A*-G homework book: p98 M12.7 Qu 1-6

[Homework book answers \(only available during a lockdown\)](#)