




## Assess your learning - Sequences and Series

Where is your learning at? <b>Be Honest!</b>	 red	 orange	 green	Revised for 30 Week Exam	Revised for Summer
<b>Can you answer the following questions?</b>					
I can identify whether a sequence is arithmetic or not.					
I can find the <i>General Term</i> of an arithmetic sequence using the formula. E.g. Find the <i>General Term</i> $T_n$ of 3, 7, 11, 15 ....					
I can use the <i>General Term</i> of an arithmetic sequence to find a particular term. E.g. If $T_n = 5n - 3$ , find the 60th term.					
I can find what term number a particular value is, using the <i>General Term</i> E.g. If $T_n = 4n + 3$ , what term is the number 597 ?					
I can prove a sequence is arithmetic when given $T_n$ . E.g. If $T_n = 8n - 2$ , prove sequence is arithmetic.					
I can find the sum of the first $n$ terms of an arithmetic series using the formula. E.g. Find the sum of the first 20 terms of: 3 + 8 + 13 + 18 + ...					
I can find $T_n$ when given $S_n$ for an Arithmetic Series. E.g. If $S_n = 3n^2 + 5n$ , find $T_n$ .					
I can identify whether a sequence is <i>Geometric</i> or not.					
I can find the <i>General Term</i> of a <i>Geometric Sequence</i> using the formula. E.g. Find $T_n$ of the sequence 3, 6, 12, 24 ....					
I can find the sum of the first $n$ terms of a <i>Geometric Series</i> . E.g. Find the sum of the first 30 terms of the series 5, 10, 20, 40, ....					
I can find the <i>General term</i> of a quadratic sequence. E.g. Find the $T_n$ of the sequence 4, 8, 14, 22, 32, ....					
I can prove the formula for the sum of an infinite <i>Geometric Series</i> .					
I can find the sum of an infinite <i>Geometric Series</i> using the formula. E.g. Find the sum of $1 + 0.5 + 0.25 + \dots$					
I can express a recurring decimal as a fraction $\frac{a}{b}$ . E.g. Express the decimal 3.777777 ... in the form $\frac{a}{b}$ .					
I can find the limit of a sequence. E.g. Evaluate the limit: $\lim_{n \rightarrow \infty} \frac{4n - 3}{3n + 2}$					