

## Section 1: Definitions and notation

### Crucial points

1. **Know the definitions**

Make sure that you know the meaning of all the terms used in this unit, such as sequence, series, increasing sequence, decreasing sequence, arithmetic sequence, geometric sequence, periodic sequence, deductive definition and inductive definition. Check the glossary to make sure.

2. **Be careful to use and interpret the  $\Sigma$  notation correctly**

The numbers above and below the  $\Sigma$  tell you the first and last term of the sum. So  $\sum_3^7 a_k$  means the sum of the 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> terms

of the sequence  $a_k$ , i.e.  $\sum_3^7 a_k = a_3 + a_4 + a_5 + a_6 + a_7$