

**Arithmetic Series** – the indicated sum of the terms of an arithmetic sequence. Example of finite arithmetic series:  $1 + 3 + 5 + 7 + 9$  (Note this is the sum of a finite arithmetic sequence whose first term is 1 and common difference is 2). In general, the sum of a finite arithmetic series is  $\sum_{i=1}^n a_i = n(a_1 + a_n) / 2$