Sequences and Summation Notation

Sequences

Finite sequence

Infinite sequence

 $\boldsymbol{a}_{\!\scriptscriptstyle n}$ is the general term or the nth term

$$n! =$$

$$\sum_{i=1}^{n} a_i = \sum_{i=1}^{n} ca_i$$

$$\sum_{i=1}^{n} ca_{i}$$

$$\sum_{i=1}^{6} 5a_i =$$

$$\sum_{i=1}^{n} (a_i + b_i) =$$

$$\sum_{i=1}^{n} (a_i - b_i) =$$

$$\sum_{i=1}^{n} c =$$

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$$a_n = 3n + 2$$

$$a_1 =$$

$$a_n = \left(-3\right)^n$$

$$a_1 =$$

$$a_n = \frac{\left(-1\right)^{n+1}}{2^{n-1}}$$

$$a_1 =$$

Recursive formula

$$a_1 = 5$$
 $a_n = 3a_{n-1} - 1, n \ge 2$

$$\frac{20!}{3!17!}$$

$$\frac{18!}{16!2!}$$

$$1^2 + 2^2 + 3^2 + \dots + 15^2$$

$$\frac{1}{2} + \frac{2}{3} + \frac{3}{4} + \dots + \frac{14}{15}$$