

Advent of Mathematical Symbols

sum:

$$\sum_{k=1}^n a_k := a_1 + a_2 + \dots + a_n$$

recursive definition:

$$\sum_{k=1}^0 a_k := 0 \quad , \quad \sum_{k=1}^n a_k := \left(\sum_{k=1}^{n-1} a_k \right) + a_n$$