

Properties of sum

Defn: $\sum_{i=1}^n x_i = x_1 + x_2 + \dots + x_n$

Properties

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

$$2) \sum_{i=1}^n (c \cdot x_i) = c \cdot \sum_{i=1}^n x_i$$

$$3) \sum_{i=1}^n (c \cdot x_i + d) \\ = \left(c \cdot \sum_{i=1}^n x_i \right) + n \cdot d$$