

Sigma Notation

Section 6.1

The sum $1 + 2 + \cdots + 10$ can be written as $\sum_{k=1}^{10} k$ or equivalently $\sum_{i=1}^{10} i$ or equivalently $\sum_{j=1}^{10} j$, and so on.

The sum $3^2 + 4^2 + \cdots + 15^2$ can be written in the compact form $\sum_{k=3}^{15} k^2$, or equivalently $\sum_{t=3}^{15} t^2$, or equivalently $\sum_{j=3}^{15} j^2$, or using any other index (instead of k , t , or j) we wish.

If f is a function, then a sum $f(x_4) + f(x_5) + \cdots + f(x_{11})$ can be written in the compact form $\sum_{k=4}^{11} f(x_k)$.

This is all about section 6.1. Section 6.1 is to introduce the sigma notation.
