



**Why**

We want a notation for expressing the sum of a sequence of real numbers.

**Definition**

Let  $x = (x_1, \dots, x_n)$  be a sequence of real numbers. The *sequence sum* of  $x$  is the result of first summing the first two numbers, then summing the result with the third number, and so on, until we have summed all the numbers.

**Notation**

Let  $x = (x_1, \dots, x_n)$  be a sequence of real numbers. We denote the sequence sum of  $x$  by

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



