

Sorting of data

[Nematrian website page: [SortingIntro](#), © Nematrian 2015]

A very common mathematical task is that of sorting of data. For example, any list that is put into alphabetical order has been sorted in a particular manner.

Sorting of real valued arrays is also common within the financial community. For example, whenever someone wishes to calculate a quantile, or [percentile](#), or some other 'order' statistic then somewhere within the computer algorithm used will be some means of sorting the data, i.e. taking an original series $\{x_1, x_2, \dots, x_n\}$ and identifying a new series, containing the same values but now sorted, say, as $\{x_{(1)}, x_{(2)}, \dots, x_{(n)}\}$ where $x_{(1)} \leq x_{(2)} \leq \dots \leq x_{(n)}$.

The Nematrian website provides a number of tools for sorting different types of data, see [Sorting Functions](#).