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ascending order

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Entry type	Definition
Classification	msc 06A99
Related topic	DescendingOrder
Defines	strictly ascending order

A sequence or arbitrary ordered set or one-dimensional array of numbers, a , is said to be in *ascending order* if each $a_i \leq a_{i+1}$. For example, the Fibonacci sequence is in ascending order: 1, 1, 2, 3, 5, 8, 13, 21 ... The Perrin sequence is not in ascending order: 3, 0, 2, 3, 2, 5, 5, 7, 10, 12, 17 ...

In a trivial sense, the sequence of values of the sign function is in ascending order: ... -1, -1, -1, 0, 1, 1, 1... When each $a_i < a_{i+1}$ in the sequence, set or array, then it can be said to be in *strictly ascending order*.