

Discrete Mathematics

Induction and Recursion

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Increasing and Decreasing Sequences

Increasing Sequences

A sequence is **increasing** if its value increases with the indices.

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Example. $f_n = n + 5, n \in \mathbb{N}$.

Decreasing Sequences

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Example. $g_n = \frac{1}{n}, n \in \mathbf{N}$.

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Remark. Sometimes a sequence is neither increasing nor decreasing.