

Section 3.1 Sequences and Limits

A sequence is a function defined on $\mathbb{N} = \{1, 2, 3, \dots\}$ whose range is contained in \mathbb{R} .

We say that the sequence x_n converges to x , and write $\lim_{n \rightarrow \infty} x_n = x$ or $x_n \rightarrow x$, if for all $\epsilon > 0$, there exists $K(\epsilon)$ such that if $n > K(\epsilon)$, $|x_n - x| < \epsilon$.