

METRIC LIMITS

Why

Once we have a notion of distance, we can define a more general notion of convergence.

Definition

Let (X, d) be a metric space and let $(x_n)_{n \in \mathbb{N}}$ be a sequence in X. A $limit\ (x_n)_{n \in \mathbb{N}}$ is an element $x \in X$ for which $d(x, x_n) \to 0$.

