

Definition 4.4.10. A function $f : D \rightarrow \mathfrak{R}$ with $D \subseteq \mathfrak{R}$ is a *Lipschitz* function if and only if there exists $L > 0$, called a *Lipschitz² constant*, such that

$$|f(x) - f(t)| \leq L|x - t|$$

for all x and $t \in D$.

²Rudolf Otto Lipschitz (1832–1903) was a German mathematician who contributed to mathematics mainly in differential equations, differential geometry, algebra, and number theory.