

Source: [KBhMATH401Limits](#)

1 | Epsilon Delta Proofs

What a limit actually is...

Formal Definition of a Limit

Definition 1 · **Limit Definition** $\lim_{x \rightarrow a} f(x) = L$
for all $\epsilon > 0$, there exists a δ such that *if* $0 < |x - a| < \delta$, *then* $0 < |f(x) - L| < \epsilon$