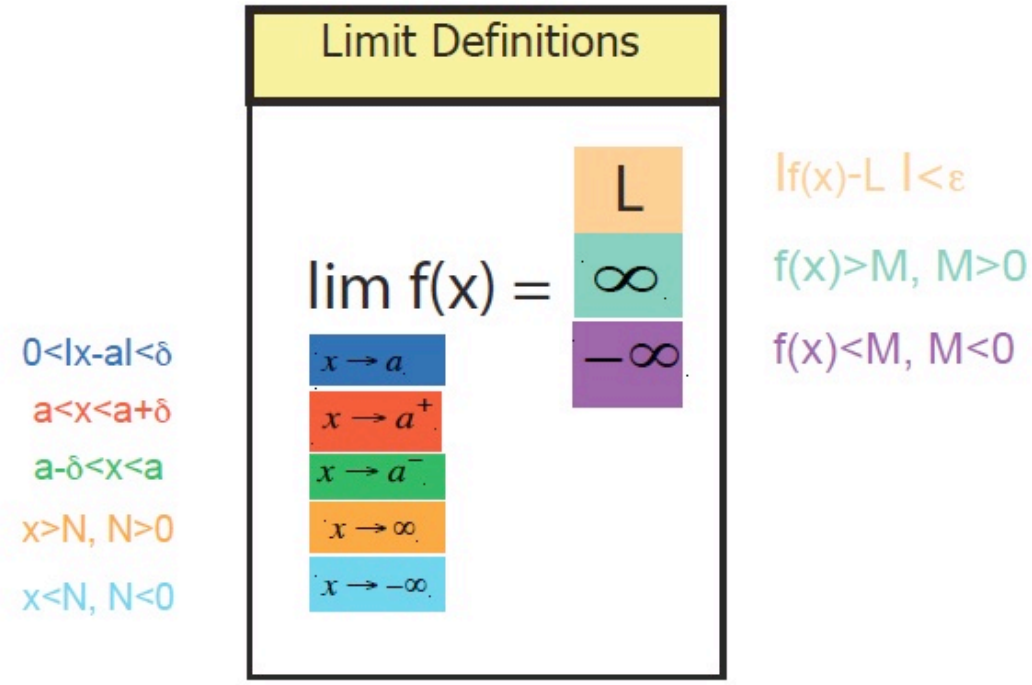
Formal Limit Definitions

General Form of Definitions:

Given any _____*(ε>0, M>0, M<0 what is the challenge on f)*_____, there is a corresponding __*δ>0, N>0, N<0 (what is the requirement on x)*_____, such that if x is ____*(where it meets that requirement)*__ then f(x) _____*(beats the challenge)*_____.



Example: $\lim_{x \to a^-} f(x) = L$

means that for every ε> 0 there must be a corresponding δ such that if a-δ<x<a then |f(x)-L|<ε.