- solve for x being > or < some value, set that value = to M or N
  then do proof from there

• one sided

$\lim_{x \to a^+} f(x) = L \quad \forall \varepsilon > 0 \ \exists \delta > 0 \mid 0 < x - a < \delta \Rightarrow |f(x) - L| < \varepsilon$

$\lim_{x \to a^-} f(x) = L \quad \forall \varepsilon > 0 \ \exists \delta > 0 \mid 0 < -(x - a) < \delta \Rightarrow |f(x) - L| < \varepsilon$

$\lim_{x \to a^+} f(x) = \infty \quad \forall N > 0 \ \exists \delta > 0 \mid 0 < x - a < \delta \Rightarrow f(x) < N$

$\lim_{x \to a^-} f(x) = \infty \quad \forall N > 0 \ \exists \delta > 0 \mid 0 < -(x - a) < \delta \Rightarrow f(x) < N$

$\lim_{x \to a}$ → If ⊕ → inequality is w/ $x - a$
If ⊖ → inequality is w/ $-(x - a)$