

Continuity

Definition of $\lim_{x \rightarrow c} f(x)$ has nothing to do with $f(c)$

Definition of continuity.

If f is continuous at c , then $\lim_{x \rightarrow c} f(x) = f(c)$

If $\lim_{x \rightarrow c} f(x) = f(c)$, then f is continuous at c .