From Chapter 5:



We've been studying sequences in order to define limit. Now we're finally ready to define "limit:"

Definition 5.1 Suppose g is a function and c and L are numbers. Then we say

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the limit of g(x), as x approaches c, is L
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if for every sequence \boldsymbol{h} (with $\boldsymbol{h} \neq c$ (ultimately)),

if $\boldsymbol{h} \to c$ then $g(\boldsymbol{h}) \to L$.

We write $\lim_{x\to c} g(x)$ to denote "the limit of g(x), as x approaches c."