

Theorem: Squeeze Theorem for Sequences

If $\lim_{n \rightarrow \infty} a_n = L = \lim_{n \rightarrow \infty} b_n$ and there exists an integer N such that $a_n \leq c_n \leq b_n$ for all $n > N$,
then

$$\lim_{n \rightarrow \infty} c_n = L$$