

Math fact of the week

September 2, 2024

Theorem (Korovkin). *Let $T_n : C[0, 1] \rightarrow C[0, 1]$ be a sequence of operators satisfying $T_n f \geq 0$ whenever $f \geq 0$. Let $f_i(t) = t^i$ for $i = 0, 1, 2$. If $T_n f_i \rightarrow f_i$ as $n \rightarrow \infty$ for $i = 0, 1, 2$, then $T_n f \rightarrow f$ for all $f \in C[0, 1]$.*