

Q9: If for all x we had that $\sup_k \{\|T_{jk}x\| : j \in \mathbb{N}\} < \infty$ for all x , uniform boundedness would imply that $\sup_{j,k} \{\|T_{jk}\|\} < \infty$. This contradicts the assumption, since we assume that for each k there is x so that $\sup\{\|T_{jk}x\| : j \in \mathbb{N}\} = \infty$. Therefore there is an x so that $\sup_k \{\|T_{jk}x\| : j \in \mathbb{N}\}$ for all k .