

Math 131  
Warm-up 35

Name:

Let  $\{f_n\}$  be a convergent sequence in  $C([a, b])$ . Prove that for every  $\varepsilon > 0$  there is a  $\delta > 0$  such that for every  $n \in \mathbb{N}$ , if  $|x - y| < \delta$  then  $|f_n(x) - f_n(y)| < \varepsilon$ .