# Advanced Calculus II, Fall 2022, Worksheet for Lecture 4 

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Name: $\qquad$

Discussing the problems with other people is encouraged, but you must write up your own work independently!

1. Show that if $r \geq 0$ is a real number such that for all real numbers $\epsilon>0$, we have $r \leq \epsilon$, then $r=0$.

Prove this (hint: use contradiction - what if $r \neq 0$ ?)

