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

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	Discussing the problems with other people is encouraged, but you must write up your own work independently!	
1.	Show that if $r \ge 0$ is a real number such that for all real numbers $\epsilon > 0$ , we have $r \le \epsilon$ , then $r = 0$ .	
	Prove this (hint: use contradiction – what if $r \neq 0$ ?)	