

PROBLEM SET NO. 3 (DUE ON MONDAY, OCTOBER 20 AT  
4:00 PM)

TUESDAY 10-14

- **Problem 3:** Prove that if  $\lim_{x \rightarrow a} f(x) = l$  then one can find a number  $M$  and a  $\delta > 0$  such that  $|f(x)| < M$  whenever  $0 < |x - a| < \delta$ .