## Homework 1 - due 09/12/03

Math 340

REMARK: Please note that in problem \#5, the ' superscript on $g$ DOES NOT DENOTE the derivative of $g$ ! I was simply using $g^{\prime}$ to designate another function (a priori different from $g$ ). It would have been preferably if I had simply used another letter (say $k$ ) to denote this other function.
5. Show that if $f$ has an inverse, then that inverse is unique. (Hint: suppose $g$ and $g^{\prime}$ are each inverse to $f$. Show that $g=g^{\prime}$ by considering the composition $\left.g \circ f \circ g^{\prime}\right)$. This result justifies our referring to THE inverse of $f$.

