

MATH 554- 703 I - ANALYSIS I
HOMEWORK ASSIGNMENT # 1
DUE THURSDAY - AUGUST 27, 2001

1. Using the field axioms, prove that the multiplicative identity is unique.
2. Using the field axioms, prove that for each $a \in F, a \neq 0$, the multiplicative inverse of a is unique.
3. Suppose that F is an ordered field, i.e. a field with a positive cone. Suppose that $a < b$ and $0 < c$, then prove that $ac < bc$.