

**MAT 141**  
**Problem Set #2**

due in recitation on September 9 or 10, 2004

1. Read section I 2 , "Some Basic Concepts of the Theorey of Sets", in the text.
2. Prove theorem I.12 using only the field axioms and theorems I.1 – I.11. Be sure to explicitly state which axioms and theorems you are using.
3. Prove theorems I.22 and I.23. For these, you may use all nine axioms and theorems I.1 – I.21.
4. Apostol, section I 3.3 # 2, 3, 5