Problem Set 1 Real Analysis Due 9/3/2010

Several of these problems will be graded, with each graded problem worth 5 points. Clear, complete, and legible justification is required for full credit. You are welcome to discuss these problems with anyone and everyone, but must write up your own final submission without reference to any sources other than the textbook and instructor.

1. Prove Theorem 1.7.2(a) for the multiplicative case.

2. Prove Theorem 1.7.2(b) for the additive case.

3. Prove Theorem 1.7.2(e).

4. Prove Theorem 1.7.2(f).

5. Prove Theorem 1.7.2(g).

6. Prove Theorem 1.7.4(c).

7. Prove Theorem 1.7.4(d).

8. Prove Theorem 1.7.8.

9. Prove that parts (a) and (c) of Theorem 1.7.9 are equivalent.

10. Prove Theorem 1.8.5(c).