

**Due In Class:** Thursday, October 16.

**Reading:** Read Chapter 4.

Turn in the following problems. Exercise a.b refers to Exercise b in Chapter a of the textbook.

**Problem A:** Exercise 4.1 *Justify your assertion.*

**Problem B:** Exercise 4.2

**Problem C:** Exercise 4.4

**Problem D:** Exercise 4.5

**Problem E:** Exercise 4.6

The following problem should be included in the writing portfolio, a draft of which is due in class on Thursday, November 13th. The portfolio should be typeset (e.g. using L<sup>A</sup>T<sub>E</sub>X, etc.) and should follow the conventions outlined in ‘Some Remarks on Writing Mathematical Proofs’ by John M. Lee (available by link on the course webpage). You may discuss the solutions of portfolio problems with your classmates, but all write-ups should be completed independently. Feedback on your portfolio is available at any time during the instructor’s office hours.

**Portfolio Problem 1:** Give a complete, self-contained proof of Theorem 4.9 in the textbook.