Math 640A   **Fall 2002**
Homework 7, due Friday November 1.

1. (30 points)

   (a) Section 4.5 problem 21.

   (b) Relate this problem to Section 3.2 problem 5, and thereby construct a recursive algorithm for computing A^{-1}.

   (c) Compare this algorithm to the Neumann series method in Section 4.5 and the product method in the last problem on homework 6. Would you recommend this algorithm over those?

2. (25 points) Section 4.6 problem 28.

3. (25 points) Do this problem as a Good Problem, paying attention to the *Layout*, *Flow*, *Symbols*, and *Logic* handouts.

   Section 4.6 problem 33.

4. (20 points) Section 4.7 problems 1 and 2.