Due on or before class time on Monday; January 12, 2004.

1. Solve a linear system by elimination and back substitution
   
   \[
   \begin{align*}
   x + y &= 1 \\
   4x + 6y + z &= 4 \\
   -2x + 2y &= -10
   \end{align*}
   \]

2. Consider \( A = \begin{bmatrix} 0 & 1 & 2 \\ 1 & 2 & 3 \\ 1 & -1 & 0 \end{bmatrix} \). Calculate \( B = A^2 + A \). Is \( AB = BA \) ?

3. page 37, #6

4. page 37, #14

5. page 48, #14

6. page 55, #6