ASSIGNMENT 6

Due March 31, 2005 (before start of class)

Problem 7

1. Write a Matlab program to solve the following least squares problem using the set of normal equations

$$\begin{bmatrix} 0.16 & 0.10 \\ 0.17 & 0.11 \\ 2.02 & 1.29 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \end{bmatrix} \cong \begin{bmatrix} 0.26 \\ 0.28 \\ 3.31 \end{bmatrix}.$$

   You can only use the Matlab programs posted at the course website to solve this problem.

2. Now solve the same least squares problem using the same method, but this time use the slightly perturbed right-hand side

$$\mathbf{b} = \begin{bmatrix} 0.27 \\ 0.25 \\ 3.33 \end{bmatrix}.$$

3. Compare your results from parts 1 and 2. Can you explain this difference?