

CS 3513 - Numerical Analysis

Homework #4 - 2006.09.27

Due Date - 2006.10.06

Name: _____

For each of the following matrices, compute (by hand) the inverse of the matrix and its condition number.

1. $A = \begin{bmatrix} 4 & -1 \\ -2 & 6 \end{bmatrix}$

2. $B = \begin{bmatrix} 4 & -1 & 2 \\ 6 & 5 & 2 \\ 0 & -4 & 5 \end{bmatrix}$

3. $C = \begin{bmatrix} \frac{1}{2} & 0 & 40 \\ 7 & 23 & 1 \\ 0 & 19 & -1 \end{bmatrix}$

4. $D = \begin{bmatrix} 2 & 3 & 4 & 1 \\ 0 & -9 & 8 & 5 \\ 4 & 3 & 7 & 5 \\ 3 & 2 & 1 & 5 \end{bmatrix}$