

Homework 6

Due Wednesday, April 25, 2007, at 11:00 am in class

Remark: I may not grade all assignments and may not grade all questions/parts on the assignment I grade.

(1) Let

$$A = \begin{bmatrix} 4 & 0 & 5 \\ 3 & 2 & 1 \\ 6 & 8 & 7 \end{bmatrix}.$$

Find

- (a) $A^2 - 2A^T$.
 - (b) $\det(A)$ by using cofactors (the method we covered in class).
 - (c) A^{-1} by using the adjoint method.
- (2) Solve the following system by using the inverse of the matrix in the previous question:

$$4x_1 + 5x_3 = -1.$$

$$3x_1 + 2x_2 + x_3 = -2.$$

$$6x_1 + 8x_2 + 7x_3 = -3.$$