

# CS 525 - Fall 2009 - Homework 6

assigned 10/12/09 - due **Wednesday** 10/21/09

1. Solve the problem in Exercise 3-6-15 using Scheme II.
2. For the following matrix, find the rank, and also identify any linear dependencies between the rows and between the columns:

$$A = \begin{bmatrix} 0 & 1 & -1 & 3 \\ -1 & 2 & -1 & -2 \\ 0 & 2 & -2 & 6 \end{bmatrix}.$$

3. Solve the problem in Exercise 4-2-2 by adding dual labels to the tableau and applying Phase I and Phase II in the usual way. (Hint: If you need to add a row and column for Phase I, just use the usual `addrow` and `addcol` commands; the dual labels for the row and column will be left blank, which is OK.)

Generate MATLAB output as outlined in the MATLAB setup sheet. Hand in hard copy at the start of class.