

## Attendance Quiz for Lecture 11

NAME: (print!) \_\_\_\_\_ Section: \_\_\_\_\_

E-MAIL ADDRESS: (print!) \_\_\_\_\_

1. a) Find an LU decomposition of the following matrix

$$\begin{bmatrix} 2 & -1 & 1 \\ 4 & -1 & 4 \\ -2 & 1 & 2 \end{bmatrix}$$

b) Use the answer to part a) to solve the following system of linear equations:

$$2x_1 - x_2 + x_3 = -1$$

$$4x_1 - x_2 + 4x_3 = -2$$

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