

Attendance Quiz for Dec. 13, 2010

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

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

1. An inconsistent system of linear equations  $A\mathbf{x} = \mathbf{b}$  is given. Use the method of least squares to obtain the vectors  $\mathbf{z}$  for which  $\|A\mathbf{z} - \mathbf{b}\|$  is a minimum.

$$A = \begin{bmatrix} 1 & 1 \\ 1 & 2 \\ 3 & 1 \end{bmatrix}, \quad \mathbf{b} = \begin{bmatrix} 3 \\ 5 \\ 4 \end{bmatrix}$$

2. Obtain the solution of least norm to the equation

$$x_1 - 3x_2 + 2x_3 = 5 \quad .$$