

**MATH 260, CPA 3, Fall '14**

**Due: September 9, 2014**

**Honor Code:**

**Name:**

**Section:**

1) Use the linear system below to...

$$\begin{array}{rccccrcrcl} x & - & y & - & 2z & = & 1 \\ 2x & + & 3y & + & z & = & 2 \\ 5x & + & 4y & + & 2z & = & 4 \end{array}$$

a) convert the system into the matrix-vector form,  $\mathbf{A}\vec{x} = \vec{b}$ .

b) write the augmented matrix  $[\mathbf{A}|\vec{b}]$  for the system.

c) use elementary row operations to change the 2 in the 2,1 spot (the second row, first column entry) of the matrix  $\mathbf{A}$  into a 0. Give the resulting matrix which row operation(s) you used to get it.