

MA 371 9/8/03 Quiz 2.

**NAME:**

**Calculators are not to be used. Show all work.**

1. Find the reduced row echelon form of the matrix  $\begin{pmatrix} 0 & -1 & -1 & 0 \\ 0 & 1 & 1 & 0 \\ 1 & 1 & 0 & 1 \\ 1 & 1 & 2 & 1 \end{pmatrix}$

2. The matrix  $\begin{pmatrix} 1 & -2 & 0 & 1 \\ 0 & 0 & 1 & 3 \end{pmatrix}$  is in reduced row echelon form. Use this fact to write

the solution to the homogeneous system 
$$\begin{array}{rcl} x_1 & -2x_2 & +x_4 = 0 \\ & & x_3 + 3x_4 = 0 \end{array}$$