Math 310 , Applied Linear Algebra, 1 PM section

Class Quiz 1 - January 21, 2005

Name:_____ SSN:_____–____–_____

Show all of your work. An unjustified answer is not correct!

1a) Write the system of equations below in matrix equation form $A \cdot \vec{x} = \vec{b}$

$$\begin{array}{rcrcrcrcr} x & - & y & + & 3z & - & 2w & = & 0 \\ x & - & 3y & + & 5z & + & 2w & = & 6 \\ 3x & - & 5y & + & 7z & - & 6w & = & 2 \end{array}$$

1b) Use the method of Gaussian Elimination to find the Row Echelon form of the augmented matrix obtained from part a). Be sure to show your steps!

1c) Find the Reduced Row Echelon form of the augmented matrix in part b) and give the solution(s) to the equations in part a).