Su 97
EGN 3420 Quiz Name _____

SHOW ALL WORK!!

Open Notes - No calculators (leave results of all calculations in terms of fractions)

Given the system of equations $A\underline{x}=\underline{b}$ below,

$$\begin{array}{rcrcrcr} x & + & y & + & z & = & 9 \\ 2x & - & y & + & 3z & = & 14 \\ x & + & 3y & - & 2z & = & 0 \end{array}$$

1. Show there is a unique solution without solving for it. (5 pts)
2. Find the solution by Gauss Elimination. (5 pts)
3. Find the solution using the Gauss-Jordan Method. (5 pts)
4. Find the solution using $\underline{x}=A^{-1}\underline{b}$ where the inverse is obtained in either of the two ways discussed in class. (5 pts)