This is a Take-Home Quiz. You may use your book and course notes, and you may work with other members of the class, but you may not consult with outside tutors (at least not on these specific problems).

- 1. Given the matrix: $A = \begin{bmatrix} 2 & -3 & -4 \\ 0 & 0 & -1 \\ 1 & -2 & 1 \end{bmatrix}$
 - (a) (7 points) Find A^{-1} , the inverse of A

(b) (3 points) Use A^{-1} to solve the system of equations: $\begin{cases} 2x - 3y - 4z = 7 \\ -z = 13 \\ x - 2y + z = -1 \end{cases}$