Name: _____

Quiz 2

This quiz is graded out of 10 marks. No books, calculators, notes or cell phones are allowed. You must show all your work, the correct answer is worth 1 mark the remaining marks are given for the work. If you need more space for your answer use the back of the page.

Question 1. §1.2 #TF *(2 marks)* Determine whether the statement is true or false, and justify your answer.
If an elementary row operation is applied to a matrix that is in row echelon form, the resulting matrix will still be in row echelon form.

Question 2. §1.2 #11a *(3 marks)* Determine whether the statement is true or false, and justify your answer.
If the reduced row echelon form of the augmented matrix for a linear system has a row of zeros, then the system must have infinitely many solutions.

Question 2. §1.2 #7 *(5 marks)* Solve the given linear system by Gauss-Jordan or Gaussian elimination.

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