Name: _____

Student ID: _____

Quiz 3

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. §1.5 #41 *(5 marks)* Prove that if A and B are $m \times n$ matrices, then A and B are row equivalent if and only if A and B have the same reduced row echelon form.

Question 2. §1.6 #5 *(2 marks)* Solve the system by inverting the coefficient matrix.

$$
\begin{array}{rcrcrcr}
x & + & y & + & z & = & 5 \\
x & + & y & - & 4z & = & 10 \\
-4x & + & y & + & z & = & 0
\end{array}
$$