Name: _____
Student ID: _____

Quiz 4

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. §1.4 #17 *(5 marks)* Use the given information to find A.

$$(I+2A)^{-1} = \begin{bmatrix} -1 & 2 \\ 4 & 5 \end{bmatrix}$$

Question 2. §1.4 #28 *(3 marks)* Show that if a square matrix A satisfies $A^2 - 3A + I = 0$, then $A^{-1} = 3I - A$

Question 3. §1.3 #30 *(2 marks)* Assuming that all matrices are $n \times n$ and invertible, solve for D

$$ABC^T DBA^T C = AB^T$$