Department of Mathematics and Statistics

Quiz No. 2

Math302,Sem121

Section: Name: ID:

Problem 1.(3 points.)Use Gauss-Jordan elimination method to solve (if solution exists) the system of equations:

$$\begin{array}{rcrcr} 10x_1 & + & 15x_2 & = & 4 \\ 3x_1 & + & 2x_2 & = & -2 \end{array}.$$

Problem 2(2 points)Use inverse of the coefficient matrix in question (1) to solve the system and show that your answer is same in both questions.

Problem 3(3 points) Find rank of the given matrix:

$$A = \begin{pmatrix} 1 & 1 & 0 \\ 1 & 0 & 4 \\ 1 & 4 & 1 \end{pmatrix}.$$