

Student Name: _____ Student Number: _____

Serial No.: _____

Instructor: M. Z. Abu-Sbeih

Math - 260.1

Quiz No. 3

Date: 27-7-2005.

Show all your work. No credits for answers without work.

Problem 1: Consider the system of equations

$$x + 2y + z = 2$$

$$2x - y - 2z = 3$$

$$x - 2y - 2z = 0$$

(a) Write the system in Matrix Form: $A\vec{X} = \vec{b}$.

(b) Find $|A|$.

(c) Find $Adj A$.

(d) Use part (b) and (c) to find A^{-1} .

(e) Use A^{-1} to find the solution to the system.

(f) Write the augmented matrix $[A \mid b]$.

(g) Use the Gauss-Jordan method to find the solution to the system.