Instructions

➤ Make a document (either in .doc and .pdf) containing code, results. Named the file using both of your Roll nos. *i.e.* 140100001_140100002

➤ Write Up: (i) Software in which code is written, (ii) output results for each case, and (iii) explanation of results.

➤ Please upload all assignments to turnitin

Assignment 2
Due date: 28/08/2017, time: 12 midnight
Matrix Solver

1. Given the equations:

$$x_1 + x_2 - x_3 = 1$$
$$3x_1 + x_2 + x_3 = 9$$
$$x_1 - x_2 + 4x_3 = 8$$

A. Define matrix A and b in terms of (i,j), where $Ax = b$, and i= number of row and j = number of column. Show the output of A and b.

B. Solve by naive Gauss elimination (without pivoting).

C. Solve by Matrix inversion method.

2. Given the equations:

$$2x_1 + x_2 + x_3 = 5$$
$$4x_1 - 6x_2 = -2$$
$$-2x_1 + 7x_2 + 2x_3 = 9$$

A. Solve by Gauss elimination with partial pivoting.