PHY 312/628 - Numerical Methods and Programming
(Hands-on session)

Problem 1: Write a program to employ LU decomposition to get the solution of :

$3x_1 - 0.1x_2 - 0.2x_3 = 7.85$
$0.1x_1 + 7x_2 - 0.3x_3 = -19.3$
$0.3x_1 - 0.2x_2 - 10x_3 = 71.4$
Check your answers by substituting them into the original equation.

Problem 2: Find the inverse of the matrix [A] made up of the L.H.S of the above equation. Check your answer by multiplying it by original matrix.