Assignment - 1

Problems:

1 Write a computer program for the standard Gauss elimination method(i.e without pivoting) and solve the following set of linear equations.

$3.01x_1 + 2.22x_2 + 4.1x_3 = 4.5$

$1.00x_1 + 3.21x_2 + 5.3x_3 = 5.1$

$0.3x_1 – 0.44x_2 + 6.6x_3 = 7.1$

2 Extend the above program to include partial pivoting and solve the following set of linear equations .

$2.54x_1 + 1.3x_2 + 2.1x_3 = 4.4$

$0.00002x_1 + 1.5x_2 – 4.3x_3 = 3.33$

$3.1x_1 + 6.1x_2 + 14.2x_3 = 7.22$

Always use double precision always.