LAB 6: Numerical Solution of system of equations, test for consistency and graphical representation of the solution.

Write a program to

1. Check whether the following system of homogenous linear equation has non – trivial solution.

$x_1 + 2x_2 - x_3 = 0$; $2x_1 + x_2 + 4x_3 = 0$; $3x_1 + 3x_2 + 4x_3 = 0$.

2. Examine the consistency of the following system of equations and solve if consistent.

$x_1 + 2x_2 - x_3 = 1$; $2x_1 + x_2 + 4x_3 = 2$; $3x_1 + 3x_2 + 4x_3 = 1$.