1. Develop a C program to implement **Gaussian Elimination** method. Test your program on the following system of linear equations:

After elimination of each variable, display the augmented coefficient matrix. Incorporate **pivoting** technique in the program.

2. Develop a C program to implement **Gauss-Seidel** iterative method. Test your program on the following:

The solution needs to correct up to the 3rd place after the decimal point. Display the output in the following tabular form:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **(no. of iteration)** |  |  |  |  |
|  |  |  |  |  |

3. Develop a C program to find the inverse of a non-singular matrix by **Gauss-Jordan** elimination method. Arrange for verification of the product of the matrix and its inverse. Test your program on the following: