# EXPERIMENT-7

# Aim: To subtract two 2-Dimensional matrices.

## Pseudo code

Input matrix sizes (m, n)

Initialize matrix A[m][n]

Input values for matrix A

Initialize matrix B[m][n]

Input values for matrix B

Initialize matrix subtract[m][n]

Calculate subtraction of matrices

Output subtracted matrix

## Source code:

#include<iostream>

using namespace std;

int main(){

   int m,n;

   cout<<"Enter the elements of first matrix: ";

    cin>>m;

   cout<<"Enter the elements of second matrix: ";

    cin>>n;

   int a[m][n];

   for (int i=0;i<m;i++){

    for (int j=0;j<n;j++){

        cin>>a[i][j];

    }

   }

   int b[m][n];

   cout<<"Enter the elements of first matrix: ";

    cin>>m;

   cout<<"Enter the elements of second matrix: ";

    cin>>n;

   for (int i=0;i<m;i++){

    for (int j=0;j<n;j++){

        cin>>b[i][j];

    }

   }

   int subtract[m][n];

   cout<<"Subtraction of matrix: "<<endl;

    for (int i=0;i<m;i++){

    for (int j=0;j<n;j++){

        subtract[i][j]=a[i][j]- b[i][j];

          cout<<subtract[i][j]<<" ";

    }

    cout<<endl;

   }

}

## Output:

**Enter the elements of first matrix: 2**

**Enter the elements of second matrix: 2**

**4**

**3**

**2**

**1**

**Enter the elements of first matrix: 2**

**Enter the elements of second matrix: 2**

**4**

**3**

**2**

**1**

**Subtraction of matrix:**

**0 0**

**0** **0**

## Learning from experiment

* Input two matrix sizes.
* Initialize and input values for two matrices.
* Calculate and output the sub traction.