**47.Find the sum of diagonals of a matrix**

**PROGRAM:**

#include <bits/stdc++.h>

using namespace std;

const int MAX = 100;

void printDiagonalSums(int mat[][MAX], int n)

{

int principal = 0, secondary = 0;

for (int i = 0; i < n; i++)

{

for (int j = 0; j < n; j++)

{

if (i == j)

principal += mat[i][j];

if ((i + j) == (n - 1))

secondary += mat[i][j];

}

}

cout << "Principal Diagonal:" <<

principal << endl;

cout << "Secondary Diagonal:" <<

secondary << endl;

}

int main()

{

int a[][MAX] = {{1, 2, 3, 4},

{5, 6, 7, 8},

{1, 2, 3, 4},

{5, 6, 7, 8}};

printDiagonalSums(a, 4);

return 0;

}

**OUTPUT:**

