**Addition of submatrix**

[array](http://www.practice.geeksforgeeks.org/tag-page.php?tag=array&isCmp=0)[Amazon](http://www.practice.geeksforgeeks.org/tag-page.php?tag=Amazon&isCmp=1)

Given a matrix of size n x m. You are given a series of submatrix inside the matrix. Find the sum of all elements inside that submatrix. Submatrix position are given in terms of its: top\_left\_cell and bottom\_right\_cell.

**Input:**

The first line of input contains an integer T denoting the number of test cases.  
The first line of each test case is n and m,n is the number of rows and m is the number of columns.  
The second line of each test case contains C[n][m].

The third line contains four value of x1, y1, x2, y2.

x1, y1 is the top left cell and x2, y2 is the bottom right cell.

**Output:**

Print the sum of all elements inside that submatrix.  
  
**Constraints:**

1 ≤ T ≤ 15  
1 ≤ n,m ≤ 10  
1 ≤ C[n][m] ≤ 1000  
  
**Example:**

**Input:**  
2  
5 6  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30  
3 4 4 5  
3 3  
9 8 7 4 2 1 6 5 3  
1 2 3 3

**Output:**  
78  
26

\*\*For More Examples Use Expected Output\*\*

<http://www.practice.geeksforgeeks.org/problem-page.php?pid=486>

#include <iostream>

#include <stdio.h>

using namespace std;

int main() {

int T;

scanf("%d", &T);

while(T--) {

int n,m;

scanf("%d %d", &n, &m);

int C[n][m];

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

for(int j =0; j<m; j++) {

scanf("%d", &C[i][j]);

}

}

int x1,y1,x2,y2;

scanf("%d %d %d %d", &x1, &y1, &x2, &y2);

int fila1 = x1 - 1, col1 = y1 - 1;

int fila2 = x2 - 1, col2 = y2 - 1;

int sum = 0;

for (int i = fila1; i <= fila2; i++) {

for (int j = col1; j <= col2; j++) {

sum += C[i][j];

}

}

printf("%d\n", sum);

}

return 0;

}