Problem T. Collect Apples

OS Linux

You are given a maze containing cells. Each cell has certain number of apples. You have to start from the top-left position and traverse all the way to the bottom-right position, collecting apples on your way. You can move only in right and downward direction,ie, from any cell (i,j) you can only move right: (i,j+1) or down: (i+1,j). Find the maximum number of apples you can collect.

Input Format

First line of input contains T - number of test cases. First line of each test case contains N and M - the size of the maze. Its followed by N lines, each containing M integers indicating the number of apples in the cell.

Constraints

1 <= T <= 100
1 <= N,M <= 300
0 <= A_{ij} <= 100

Output Format

For each test case, print the maximum number of apples you can collect, separated by newline.

Sample Input 0

```
2
3 4
1 5 1 4
10 11 0 13
4 15 1 12
4 2
4 5
1 3
10 5
1 0
```

Sample Output 0

```
50
20
```

Explanation 0

Test Case 1

The path using which you can collect maximum apples is:

Total Apples = 1 + 10 + 11 + 15 + 1 + 12 = 50

Test Case 2

The path using which you can collect maximum apples is:

Total Apples = 4 + 1 + 10 + 5 + 0 = 20