Problem 1. A Broken Probe

Timelimit: 1 second

Problem Statement

In StarCraft World, which consists of a grid of n by m, there is a broken probe that can only move right or down. The probe is placed in the upper left corner of the map, and to return to the lower right corner of the map nexus. On return, the probe can consume or collect minerals depending on the nature of the grid visiting. For example, at the grid $(1, 1)$, probe can collect a mineral, but at the grid $(2, 2)$, probe loses five minerals.

Given a nature of StarCraft World, your goal is to suggest best route that can maximize benefit. We get the benefit by calculating collected minerals minus consumed minerals. For example, in the following World (Table 1), the gray route represents best path that probe can take, which the benefit is 12.

1	2	-3	0
4	-5	6	-1
-7	8	9	-5

Table 1: 3 by 4 StarCraft World, gray area represents the best route.

Input Statement

First line contains t which is the number of test cases. The first line of each test case contains $1 \leq n \leq 1,000$ and $1 \leq m \leq 1,000$, which is the size of World. Next i-th of each n lines contains m integers, $M[i][1], ..., M[i][m]$. $M[i][j]$ is larger than -100 and smaller than 100.

Output Statement

For each test case, print the benefit of best route.

Input Example

```
3
3 4
1 2 -3 0
4 -5 6 -1
-7 8 9 -5
3 5
-1 -1 -1 -1 -1
-1 -1 -1 -1 -1
-1 -1 -1 -1 -1
3 10
1 2 3 4 5 6 7 8 9 10
-10 -9 -8 -7 -6 -5 -4 -3 -2 -1
1 2 3 4 5 6 7 8 9 10
```

Output Example

```
12
-7
64
```