Project Euler #18: Maximum path sum I

This problem is a programming version of Problem 18 from projecteuler.net

By starting at the top of the triangle below and moving to adjacent numbers on the row below, the maximum total from top to bottom is 23. The path is denoted by numbers in bold.

\hspace{13 mm}\textbf{3}
\hspace{9 mm}\textbf{7}\hspace{3 mm}4
\hspace{6 mm}2\hspace{3 mm}\textbf{4}\hspace{3 mm}6
\hspace{3 mm}8\hspace{3 mm}5\hspace{3 mm}\textbf{9}\hspace{3 mm}3

That is, 3 + 7 + 4 + 9 = 23.

Find the maximum total from top to bottom of the triangle given in input.

Input
First line contains T, the number of testcases. For each testcase:
First line contains N, the number of rows in the triangle.
For next N lines, i'th line contains i numbers.

Output
Print the required answer in one line.

Constraints
1 \leq T \leq 10
1 \leq N \leq 15

Sample input

```
1
4
3
7 4
2 4 6
8 5 9 3
```

Sample output

```
23
```