

Project Euler #67: Maximum path sum II

Problem Statement

This problem is a programming version of [Problem 67](#) 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 Format

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 Format

Print the required answer for each testcase on a new line.

Constraints

- $1 \leq T \leq 10$
- $1 \leq N \leq 100$
- Each element of triangle lies between 0 and 100(both inclusive).

Sample Input

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

Sample Output

```
23
23
```