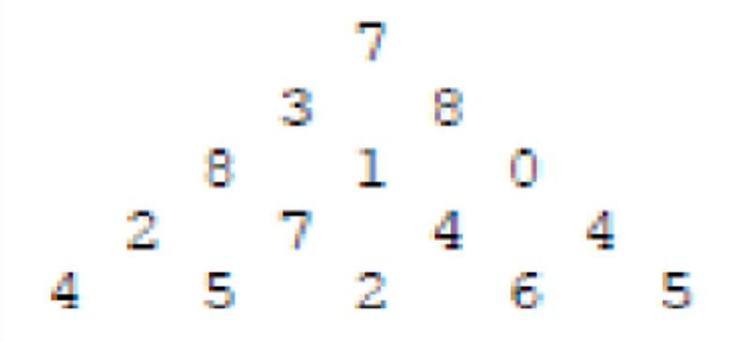
Triangles

- Time limit: 1 second
- Memory limit: 256 MB

There is a triangle of numbers (as in Figure 2). Write a program that finds the greatest sum of the path from the root to the vertex.

Calculate the root of the number and the root of the number in the pantheon of the part and the only paths considered are those

It starts at the root, passes through all levels, and ends in the vein.



Input

The next part in the first line of the number $t < 100$ The first line specifies the number of samples t . In each

It is 1 to n. N The number of faces of the triangle is given. In n lines, its sequence in the i- th line is $n < 100$

0 to 99 is received. i number n

Exit

Your program should calculate a number from each sample containing the greatest sum of the path from the root to the root.

Example

Sample input

```
1
5
```

```
7
3 8
8 1 0
2 7 4 4
4 5 2 6 5
```

Sample exit

```
30
```