Superdiagonals X54207_en

The *superdiagonal* of a matrix m is formed by the elements $m[i][j]$ in the matrix for which the column is one position more than the row: $j = i+1$ (see `https://en.wikipedia.org/wiki/Diagonal#M` that is, those elements lying along the diagonal just above the main diagonal. Write a program that computes the sums of the superdiagonals of several matrices.

Input

Input is a sequence of cases. Each case starts with a nonnegative integer n, followed by a square $n \times n$ matrix of integers.

Output

The sum of the superdiagonal elements of each matrix, in the same order, each in a line of its own.

Sample input 1

```
3
0 2 0
0 0 3
0 0 0
4
1 0 1 1
2 2 0 2
3 3 3 0
4 4 4 4
1
-1234
2
77 1
88 99
```

Sample output 1

```
5
0
0
1
```

Problem information

Author: José Luis Balcázar

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