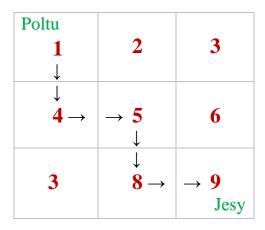# Poltu and LOVE MATRIX

OMG! Can you believe? Little Poltu is in love with Jesy, the cutest girl of his colony. Whatever, he managed to propose her. But you know she is not too easy to get. She planned to play a game with Poltu. If he wins, he wins Jesy too. You know what else ☹

The game plan is :--
Jesy defines **LOVE MATRIX** a square matrix **n × n,** consisting of non-negative number of Red Roses in each cell. Poltu stands in the upper left cell and Jesy stands in the bottom right cell of the **LOVE MATRIX**. Poltu has to reach Jesy following such a way that he can collect the maximum number of Red Roses from the cells.

But there are some rules of the game. They are :--
- Journey starts from the upper left cell where Poltu is standing.
- He can only move right or down from the current cell.
- Journey ends to the bottom right cell where Jesy is standing.

Since Jesy doesn't know the maximum number of Red Roses that can be collected, so she is afraid Poltu can cheat her. Now the cutest girl needs your help.

Find the maximum number of Red Roses that can be collected so that Poltu can't cheat Jesy.

Input
Input starts with an integer T $(1 \le T \le 50)$ – the number of test cases.
First line of each case contains an integer n $(2 \le n \le 300)$ – the size of the **LOVE MATRIX.** Then follow n lines. The ith line contains n elements a_{ij} $(1 \le j \le n,\ 1 \le a_{ij} \le 100)$ – where a_{ij} is the number of Red Roses in the cell of ith row and j^{th} column.

Output

For each case, print an integer *k* – the maximum number of Red Roses that can be collected from the *LOVE MATRIX* satisfying the rules.

Sample Input	Sample Output
1 3 1 2 3 4 5 6 3 8 9	27

The sample is illustrated inside the problem statement.

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