

15-th Bulgarian National Olympiad in Informatics

May 15 and 16, 1999

Final round

Problem 1. The Maximal Square

A square table with N by N cells ($3 \leq N \leq 60$) contains integers. Each of them belongs to the interval $[-9, 9]$. Any square part of the table, that consists of K subsequent rows and K subsequent columns ($1 \leq K \leq N$), is called a square. The total sum of all the integers located in the cells of a square, is called a sum of the square.

Write a program SQR.EXE that finds out the maximal sum of a square within a given table.

The **input data** are read from text file SQR.INP. In the first row of this file, there is written the size N of the table. Each one of the next N rows contains N integers representing the corresponding row of the table. The integers are separated by a space.

The **output** must be written into a text file SQR.OUT with a single row containing the obtained maximal sum.

An example:

Input:

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

Output:

```
20
```

Source is taken from the site [iNFORMATiKA](http://www2.math.bas.bg/inf/resource/sources/olymp/99round4/tasks.zip):

(<http://www2.math.bas.bg/inf/resource/sources/olymp/99round4/tasks.zip>)

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