Problem A. Network Saboteur

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Input file: input.txt	Time limit: 3 sec
Output file: output.txt	Memory limit: 8 Mb

Statement

A university network is composed of N computers. System administrators gathered information on the traffic between nodes, and carefully divided the network into two subnetworks in order to minimize traffic between parts.

A disgruntled computer science student Vasya, after being expelled from the university, decided to have his revenge. He hacked into the university network and decided to reassign computers to *maximize* the traffic between two subnetworks.

Unfortunately, he found that calculating such worst subdivision is one of those problems he, being a student, failed to solve. So he asks you, a more successful CS student, to help him.

The traffic data are given in the form of matrix C, where C_{ij} is the amount of data sent between ith and jth nodes ($C_{ij} = C_{ji}$, $C_{ii} = 0$). The goal is to divide the network nodes into the two disjointed subsets A and B so as to maximize the sum of all C_{ij}, where i belongs to A, and j belongs to B.

Input file format

The first line of input file contains a number of nodes N. The following N lines, containing N space-separated integers each, represent the traffic matrix C.

Output file format

Output file must contain a single integer - the maximum traffic between the subnetworks.

Constraints

$2 \le N \le 20$; $0 \le C_{ij} \le 10000$.

Sample tests

No.	Input file (`input.txt`)	Output file (`output.txt`)
1	3 0 50 30 50 0 40 30 40 0	90