Problem Statement

Let there be N workers and N jobs. Any worker can be assigned to perform any job, incurring some cost that may vary depending on the work-job assignment. It is required to perform all jobs by assigning exactly one worker to each job and exactly one job to each agent in such a way that the total cost of the assignment is minimized.

Input Format

Number of workers and job: N

Cost matrix C with dimension N*N where C(i,j) is the cost incurred on assigning ith Person to jth Job.

Sample Input

4

Sample Output

13

Constraints

N <= 20