

A Wise Leader



You are the head of a department in your company and your job is to delegate tasks to your co-workers. You have 10 co-workers under your supervision and 10 number of tasks for each of those co-workers. Each co-worker has his own capacity in terms of the time he takes to complete the task. Each co-worker is assigned with only one task and each task has to be done by exactly one person.

Your task is to assign the tasks to your co-workers in such a way that the total time taken to complete the set of tasks is the minimum.

Input Format

The input is a 10 x 10 matrix, representing the time taken by the co-workers to complete the tasks.. The first row contains 10 integers which represents the time taken, T by the first co-worker to complete the 10 tasks. The next 10 rows represents the time taken by the the second co-worker to do the 10 and so on till the last co-worker.

Constraints

- **The number of coworkers = the number of tasks = 10.**
- **The time taken, in minutes to complete a task, T :** A positive integer where $(0 \leq T \leq 1000)$.

Output Format

Output the total minimum time taken in the optimal task assignment.

Sample Input 0

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2
3 4
5 10
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Sample Output 0

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9
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Explanation 0

The first co-worker takes 3 units and 4 units of time to complete task 1 and 2 respectively. The second person takes 5 units and 10 unit of time to complete task 1 and 2 respectively. We can see that the optimal delegation of task will be to give task 2 to co-worker 1 and task 1 to co-worker 2 for a total of $4 + 5 = 9$ units of time.