Assignment Problem

The Problem

Given a number of jobs and a number of workers, where each worker has a specific cost for doing a specific job, compute the minimum cost for assigning one job to each worker.

The Input

The first line contains the number of test cases T ($T <= 250$).

The first line of each test case contains 2 integers – W and J. W is the number of workers, $1 \le W \le 500$. J is the number of jobs, $J = W$.

The next W lines contain J integers – $1 \le C_j \le 1000$ – where C_j is the cost for the current worker to complete job j.

The Output

For each test case, output the message "Test x: Minimum Cost = y", where x is the test case number and y is the minimum cost for assigning the jobs. Test case numbers start at 1.

Sample Input

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

Sample Output

```
Test 1: Minimum Cost = 10
Test 2: Minimum Cost = 13
```