H   PRACTICE   COMPETE   JOBS   LEADERBOARD   🔍 Search   💬   🔔   👤 KINGSLAYER2789 ⌄

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The Matrix Reloaded   🔒 locked

Problem	Submissions	Leaderboard	Discussions

There is a matrix designed to find "The One" and it serves as a test for the same. The matrix has the dimension NxN(where N is odd) and the goal is to reach the center in as many steps as possible. Every cell of the matrix has a height associated with it defined by $H_{i,j}$. A step is defined as moving from a cell S to T such that the height of cell T is strictly less than that of S (The cells can be located anywhere in the matrix). You are initially on the first row and first column of the matrix.

Find the maximum number of steps that you can take to reach the center of the matrix or print -1 if it is not possible.

NOTE: All the cells have distinct height. i.e. No two cells have the same height.

Input Format

First line contains T, number of test cases, First line of each test case contains N, next N lines describe the height of each cell in the matrix. Each of the next N lines contain N space seperated integers.

Constraints

- $1 \leq T \leq 10$
- $1 \leq N \leq 99$
- N is odd
- $1 \leq H_{i,j} \leq 10^9$

Output Format

For each test case print the maximum number of steps that you can take or print -1 if it is not possible to reach the center.

Sample Input 0

```
2
3
10 7 12
8 3 14
11 5 2
3
9 7 12
8 13 14
11 5 2
```

Sample Output 0

```
4
-1
```

Explanation 0

In the first test case, you can move through the following path -

(1 , 1) -> (2 , 1) -> (1 , 2) -> (3 , 2) -> (2 , 2) Center

In the second example it is not possible to reach the center as it is higher than (0, 0)

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Submissions: 252
Max Score: 20
Difficulty: Medium

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More

Current Buffer (saved locally, editable)   Java 8

```java
1  import java.io.*;
2  import java.util.*;
3
4  public class Solution {
5
6      public static void main(String[] args) {
7          /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should
   be named Solution. */
8      }
9  }
```

Line: 1 Col: 1

⬆ Upload Code as File   ☐ Test against custom input   Run Code   Submit Code

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