

<https://course.acciojob.com/idle?question=5e1f2cc6-85c6-4a3e-852f-a9c03fffecbc>

● MEDIUM

● Max Score: 40 Points

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## Search In A Row Wise And Column Wise Sorted Matrix

You are given an  $N * N$  matrix of integers where each row and each column is sorted in increasing order. You are given a target integer  $x$ . Find the position of  $x$  in the matrix.

If it exists, then print the pair  $i\ j$  where  $i$  represents the row and  $j$  represents the column of the array, otherwise print  $-1\ -1$

For example: If the given matrix is:

```
1 2 5
3 4 9
6 7 10
```

We have to find the position of 4. We will print  $\{1,1\}$  since  $A[1][1] = 4$ .

## Input Format

The first line of input contains a single integer  $T$ , representing the number of test cases or queries to be run.

Then the  $T$  test cases follow.

The first line of each test case contains two space-separated integers  $N$  and  $x$ , representing the size of the matrix and the target element respectively.

Each of the next  $N$  lines contains  $N$  space-separated integers representing the elements of the matrix.

## Output Format

For each test case, print the position of  $x$ , if it exists, otherwise print 1 -1.

### Example 1

Input

```
2
3 4
1 2 5
3 4 9
6 7 10
2 5
4 5
8 6
```

Output

```
1 1
0 1
```

Explanation

The element exists in the array

### Example 2

Input

```
2
3 16
2 4 8
3 6 9
4 7 16
1 10
4
```

Output

```
2 2
-1 -1
```

Explanation

The element exists in one tc and not in another

## Constraints

$$1 \leq T \leq 10$$
$$1 \leq N \leq 10^3$$
$$1 \leq X \leq 10^6$$
$$1 \leq A[i][j] \leq 10^6$$

where 'T' is the number of test cases, 'N' is the number of rows and columns, 'X' is the target value, and  $A[i][j]$  is the elements of the matrix.

### Topic Tags

- **Arrays**

# My code

```
// n java
```

```
import java.util.*;
import java.lang.*;
import java.io.*;
```

```
//test case wrong
```

```
public class Main
{
    public static void main (String[] args) throws
java.lang.Exception
    {
        //your code here
        Scanner s=new Scanner(System.in);
        int n=s.nextInt();
        for(int l=0;l<n;l++)
        {
            int c=-1;
            int m=s.nextInt();
            int arr[][]=new int[m][m];
            int k=s.nextInt();
            for(int i=0;i<m;i++)
                for(int j=0;j<m;j++)
                {
                    arr[i][j]=s.nextInt();
                    if(arr[i][j]==k) {System.out.println(i+" "+j);c=5;}
                }
        }
    }
}
```

```
    }  
    if(c== -1)  
        System.out.println(c+" "+c);  
    }  
  
    }  
  
}
```