**Search in a matrix**

[matrix](http://www.practice.geeksforgeeks.org/tag-page.php?tag=matrix&isCmp=0)[searching](http://www.practice.geeksforgeeks.org/tag-page.php?tag=searching&isCmp=0)[Inmobi](http://www.practice.geeksforgeeks.org/tag-page.php?tag=%20Inmobi&isCmp=1)[Directi](http://www.practice.geeksforgeeks.org/tag-page.php?tag=Directi%20&isCmp=1)[Groupon](http://www.practice.geeksforgeeks.org/tag-page.php?tag=Groupon&isCmp=1)[MakeMyTrip](http://www.practice.geeksforgeeks.org/tag-page.php?tag=MakeMyTrip&isCmp=1)[OLA](http://www.practice.geeksforgeeks.org/tag-page.php?tag=OLA&isCmp=1)[One97](http://www.practice.geeksforgeeks.org/tag-page.php?tag=One97&isCmp=1)[Oracle](http://www.practice.geeksforgeeks.org/tag-page.php?tag=Oracle&isCmp=1)[Polycom](http://www.practice.geeksforgeeks.org/tag-page.php?tag=Polycom&isCmp=1)[TinyOwl](http://www.practice.geeksforgeeks.org/tag-page.php?tag=TinyOwl&isCmp=1)[Visa](http://www.practice.geeksforgeeks.org/tag-page.php?tag=Visa&isCmp=1)

Given an n x m matrix, where every row and column is sorted in increasing order, and a number x . The task is to find whether element x is present in the matrix or not.  
  
**Expected Time Complexity** : O(m + n)

**Input:**  
The first line of input contains a single integer T denoting the number of test cases. ThenT test cases follow. Each test case consists of three lines.  
First line of each test case consist of two space separated integers N and M, denoting the number of element in a row and column respectively.  
Second line of each test case consists of N\*M space separated integers denoting the elements in the matrix in row major order.  
Third line of each test case contains a single integer x, the element to be searched.  
**Output:**

Corresponding to each test case, print in a new line, 1 if the element x is present in the matrix, otherwise simply print 0.  
  
**Constraints:**  
1<=T<=200  
1<=N,M<=30  
  
**Example:**

**Input:**  
2  
3 3  
3 30 38 44 52 54 57 60 69  
62  
1 6  
18 21 27 38 55 67  
55

**Output:**  
0  
1

\*\*For More Examples Use Expected Output\*\*

<http://www.practice.geeksforgeeks.org/problem-page.php?pid=820>

#include <iostream>

#include <stdio.h>

#include <vector>

using namespace std;

int main(){

int t;

scanf("%d", &t);

while(t-- ) {

int n,m;

scanf("%d %d", &n, &m);

int matriz[n][m];

for(int i =0; i<n; i++) {

for(int j =0; j<m; j++) {

scanf("%d", &matriz[i][j]);

}

}

int x;

scanf("%d", &x);

int esta= 0;

for(int i =0; i<n && !esta; i++) {

for(int j=0; ; j++) {

if(matriz[i][j] == x) {

esta = 1;

break;

}

if(matriz[i][j] > x) {

break;

}

}

}

printf("%d\n", esta);

}

return 0;

}