**Kth element in Matrix**

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Given a N x N matrix, where every row and column is sorted in non-decreasing order. Find the kth smallest element in the matrix.

**Example 1:**

**Input:**

N = 4

mat[][] = {{16, 28, 60, 64},

{22, 41, 63, 91},

{27, 50, 87, 93},

{36, 78, 87, 94 }}

K = 3

**Output:** 27

**Explanation:** 27 is the 3rd smallest element.

**Example 2:**

**Input:**

N = 4

mat[][] = {{10, 20, 30, 40}

{15, 25, 35, 45}

{24, 29, 37, 48}

{32, 33, 39, 50}}

K = 7

**Output:** 30

**Explanation:** 30 is the 7th smallest element.

### Java Code

//Initial Template for Java

import java.util.\*;

class KthSmallestElement{

public static void main(String[] args){

Scanner sc=new Scanner(System.in);

int t=Integer.parseInt(sc.next());

while(t>0)

{

int n=Integer.parseInt(sc.next());

int[][] a=new int[n][n];

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

for(int j=0;j<n;j++)

a[i][j]=Integer.parseInt(sc.next());

int k=Integer.parseInt(sc.next());

Solution ob = new Solution();

System.out.println(ob.kthSmallest(a,n,k));

t--;

}

}

}

//User function Template for Java

class Solution

{

public static int kthSmallest(int[][]arr ,int n,int k)

{

int[] ar=new int[n\*n];

int l=0;

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

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

ar[l++]=arr[i][j];

}

}

Arrays.sort(ar);

return ar[k-1];

}

}