**K-th element of two sorted Arrays**

Submissions: [11327](https://practice.geeksforgeeks.org/problem_submissions.php?pid=1923)  Accuracy:

40.5%

   Difficulty: [Easy](https://practice.geeksforgeeks.org/Easy/0/0/)   Marks: 2

Associated Course(s): [Interview Preparation](https://practice.geeksforgeeks.org/courses/interview-preparation/)

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Given two sorted arrays **A** and **B** of size **M** and **N**respectively and an element k. The task is to find the element that would be at the k’th position of the final sorted array.

**Input:**  
First line consists of test cases T. First line of every test case consists of 3 integers N, M and K, denoting M number of elements in A, N number of elements in B and kth position element. Second and Third line of every test case consists of elements of A and B respectively.

**Output:**  
Print the element at the Kth position.

**Constraints:**  
1 <= T <= 200  
1 <= N, M <= 106  
1 <= Ai, Bi <= 106  
1 <= K <= N+M

**Example:  
Input:**  
1  
5 4 5  
2 3 6 7 9  
1 4 8 10

**Output:**  
6

**Explanation:  
Testcase 1:** Element at 5th position after merging both arrays will be 6.

\*\* For More Input/Output Examples Use ['Expected Output'](https://practice.geeksforgeeks.org/problems/k-th-element-of-two-sorted-array/0/?ref=self#ExpectOP) option \*\*

Contributor: Saksham Raj Seth  
[Author: saksham seth](https://auth.geeksforgeeks.org/user/saksham%20seth/practice/)

<https://practice.geeksforgeeks.org/problems/k-th-element-of-two-sorted-array/0/?ref=self>

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace ConsoleApp1

{

class Program

{

static void mezclar(int[] res, int[] a, int[] b, int n, int m)

{

int i = 0, j = 0;

int k = 0;

while (i < n && j < m)

{

if (a[i] < b[j])

{

res[k] = a[i];

k++;

i++;

}

else

{

res[k] = b[j];

k++;

j++;

}

}

while (i < n)

{

res[k++] = a[i++];

}

while (j < m)

{

res[k++] = b[j++];

}

}

static void Main()

{

int t = int.Parse(Console.ReadLine());

while (t-- > 0)

{

int n, m, k;

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

string[] input = Console.ReadLine().Trim().Split(' ');

n = int.Parse(input[0]);

m = int.Parse(input[1]);

k = int.Parse(input[2]);

int[] a = Array.ConvertAll(Console.ReadLine().Trim().Split(' '), e => int.Parse(e));

int[] b = Array.ConvertAll(Console.ReadLine().Trim().Split(' '), e => int.Parse(e));

int[] res = new int[n + m];

mezclar(res, a, b, n, m);

//cout << res[k - 1] << endl;

Console.WriteLine(res[k - 1]);

}

}

}

}