Find Index of Extra Element

Given two sorted arrays. There is only 1 difference between the arrays. First array has one element extra added in between. Design an **efficient algorithm** to find the index of the extra element.

Input: Already Implemented

The first line of input is an integer T (T < 30), that indicates the number of test cases. Each case consists of two integer arrays arr1 with size N+1 and arr2 with size N (size is written first, followed by the array elements). N is an integer in the range 1 to 50,000,000.

Output: Already Implemented

The result of the computation, a single integer that represents the index of the extra element.

Function: Implement it!

```
public int FindIndexOfExtraElement(int[] arr1, int[] arr2)
```

It takes two arrays of sorted integers, it shall return the index of the extra element that appears in arr1.

`FindExtraElement.cs includes this method.`

Example

#	Input Array	Output
1	2, 4, 5, 6, 8, 10, 12 2, 4, 6, 8, 10, 12	2
2	3, 5, 7, 9, 11, 13 3, 5, 7, 11, 13	3
3	3, 5, 7, 11, 14, 20 3, 5, 7, 11, 14	5
4	1, 3, 5, 7, 9, 11, 13 3, 5, 7, 9, 11, 13	0

C# Help

Getting the size of 1D array

```
int size = array1D.GetLength(0);
```

Getting the size of 2D array

```
int size1 = array2D.GetLength(0);

int size2 = array2D.GetLength(1);
```

Creating 1D array

```
int [] array1D = new int [size]
```

Creating 2D array

```
int [,] array2D = new int [size1, size2]
```

Sorting single array

Sort the given array "items" in ascending order

```
Array.Sort(items);
```

Sorting parallel arrays

Sort the first array "master" and re-order the 2nd array "slave" according to this sorting

```
Array.Sort(master, slave);
```