https://course.acciojob.com/idle?question=e6a1d307-59de-4d83-b174-943c69c5b042

- EASY
- Max Score: 30 Points

Peak element

Given an array `A` with `N` positive integers.

Your task is to find the index of peak element i.e. an element that is not smaller than its neighbors i.e. if arr[i] is the peak element, arr[i-1]<arr[i] and arr[i+1]<arr[i].

Note For corner elements, we need to consider only one neighbor.

Input Format

The first line contains the number of test cases `T`

For each test case: The first line contains an integer `N` denoting the number of elements.

The second line contains `N` space separated integers denoting the elements of the array `A`.

You need to complete `findPeak` function which contains array `arr` of size `N` and returns the index of the peak element.

Output Format

For each test case return an integer, denoting the index of the peak element. If there are multiple peak element return any one index.

Example 1

Input

```
1
5
1 10 3 10 2
```

Output

```
1
```

Explanation

10 is greater than 1 and 3. Therefore index 1 is a peak element

The answer is 1.

Note The answer can even be 4.

Example 2

Input

```
1
5
1 2 3 4 5
```

Output

```
4
```

Explanation

5 is greater than 4.

Thus answer is index 4.

There is only one unique answer in this case.

Constraints

`1 <= T <= 10`

`1 <= N <= 10000`

`1 <= A[i] <= 1000000000`

Topic Tags

- Binary Search
- Arrays

My code

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

public class Main
{
	public static void main (String[] args) throws
java.lang.Exception
	{
		//your code here
    Scanner s=new Scanner(System.in);
		int t=s.nextInt();
		for(int y=0;y<t;y++)
			{
				int n=s.nextInt();
				int arr[]=new int[n];
```

```
                for(int i=0;i<n;i++)
                        arr[i]=s.nextInt();
                if(arr[0]>arr[1])
                {
                  System.out.println("true");
                continue;
                 }
                 if(arr[n-1]>arr[n-2])
                {
                  System.out.println("true");
                        continue;
                 }
                int x=0;
                for(int i=1;i<n-1;i++)
                        {
                             if((arr[i]>arr[i+1]) && (arr[i]>arr[i-1]))
                            {
                              System.out.println("true");
                                    x=1;
                              break;
                            }
                        }
                if(x==0)
                        System.out.println("false");

        }

}
}
```