

<https://course.acciojob.com/idle?question=3f172f2c-d823-4c47-93c0-30c9dccfde82>

● EASY

● Max Score: 30 Points

Local Maximum.

Given an array 'A' with 'N' positive integers. The array follows a special property:

For some i with $0 < i < N - 1$:

$A[0] < A[1] < \dots < A[i - 1] < A[i]$ and $A[i] > A[i + 1] > \dots > A[N - 1]$.

Your task is to find the index i in 0-based indexing.

Note: There always exists such an index.

Input Format

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'.

Output Format

Print a single integer in a new line, denoting the required index.

Example 1

Input:

```
5
0 3 5 2 1
```

Output:

2

Explanation:

Since $A[0] < A[1] < A[2]$ and $A[2] > A[3] > A[4]$, the answer is 2.

Example 2

Input:

4
1 3 1 0

Output:

1

Explanation:

Since $A[0] < A[1]$ and $A[1] > A[2] > A[3]$, the answer is 1.

Constraints

$3 \leq N \leq 10^4$

$0 \leq A[i] \leq 10^6$

Topic Tags

- Binary Search
- Arrays

My code

```
// in java
import java.util.*;
```

```
import java.lang.*;
import java.io.*;
```

```
//test case issuse
```

```
public class Main
{
    public static void main (String[] args) throws java.lang.Exception
    {
        //your code here

        Scanner s=new Scanner(System.in);
        int n=s.nextInt();
        int arr[]=new int[n];
        for(int i=0;i<n;i++)
            arr[i]=s.nextInt();

        int max=arr[0],ans=0;
        for(int i=1;i<n;i++)
        {
            if(arr[i]>max)
            {
                max=arr[i];
                ans=i;
            }
        }
    }
}
```

```

    }
    System.out.println(ans);
    /* Scanner s=new Scanner(System.in);

        int n=s.nextInt();
        int arr[]=new int[n];
        for(int i=0;i<n;i++)
            arr[i]=s.nextInt();
        int lp=0,rp=n-1,ans=-1;
        while(lp<=rp)
        {
            int mid=(lp+rp)/2;
            if( mid>0 && mid <n && arr[mid] >arr[mid-1]
&& arr[mid] >arr[mid+1]  )
                ans=mid;

            if( arr[mid] >arr[mid+1])
                rp=mid-1;
            else lp=mid+1;
        }
    System.out.println(ans);*/

}
}

```