

<https://course.acciojob.com/idle?question=4631ab6f-a936-46b0-b50e-819856020489>

- EASY

- Max Score: 30 Points

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Game of largest element

Bob and his friend are playing a game of finding the largest element in an array `arr` consisting of n unique elements.

To make it difficult for Bob to win, his friend rotates `arr` k (possibly zero) times to the left about the largest element. Now, it is Bob's turn to find and tell the largest element to his friend.

For Example: `arr = [1, 2, 3, 4, 5]` after rotating 2 times to the left about its largest element (here, 5) becomes `[3, 4, 5, 1, 2]`.

Your task is to help Bob determine the largest element in the sorted and rotated `arr`.

For Example: For the rotated `arr = [4, 5, 1, 2, 3]`, the largest element is 5 which is at index 1 (0 based indexing).

Input Format:

The first line contains a single integer n denoting the number of elements in the `arr`.

The second line of contains n single space-separated integers, denoting the elements of the `arr` which a k rotated sorted array.

Output Format:

Print the largest element in the given array `arr`.

Example 1:

Input

```
3
2 3 1
```

Output

3

Explanation

The largest element in the given `arr` is **3 which is at index 1 (0 based indexing)**.

Example 2:

Input

```
4
1 2 3 4
```

Output

4

Explanation

The largest element in the given 'ARR' is 4 which is at index 3 (0 based indexing).

Constraints

$1 \leq N \leq 10^5$

$1 \leq \text{ARR}[i] \leq 10^5$

Topic Tags

- **Binary Search**

My code

```
// in 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 n=s.nextInt();
```

```
        int arr[]=new int[n];
```

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

```
            arr[i]=s.nextInt();
```

```
        int m =arr[0];
```

```
        for(int i=1;i<n;i++)
```

```
            if(arr[i]>m) m=arr[i];
```

```
        System.out.print(m);
```

```
    }
```

```
}
```