https://course.acciojob.com/idle?question=38204b35-d0a8-4b5e-a354-9b3c1040b1ea

- EASY
- Max Score: 30 Points

Next Maximum

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

Your task is to calculate the distance between every integer and the next closest integer with value greater than it. If next greater integer doesn't exist print `-1` for that particular integer.

Input Format

The first line contains the number of test cases.

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`.

Output Format

For each test case print an array in a new line, denoting the distance between the current element and its next maximum element .

Example 1

Input

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

Output

```
1 -1 1 -1 -1
```

Explanation

For the first element the next maximum element is at position 2, therefore distance is 1. For second element there is no element after it which has greater value, therefore -1. Similarly, we can see for all element.

Example 2

Input

```
1
8
73 74 75 71 69 72 76 73
```

Output

```
1 1 4 2 1 1 -1 -1
```

Explanation

For first element the next greater integer is just next therefore value 1. Similarly, we can check for all other elements.

Constraints

```
1 <= T <= 10
```

```
3 <= n <= 10000
```

```
0 <= A[i] <= 100000
```

Topic Tags

- Stacks
- Arrays

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
        {
                Scanner sc=new Scanner(System.in);
      int t=sc.nextInt();
for(int x=0;x<t;x++)  {

          int n=sc.nextInt();



      int a[]=new int[n];
      for(int i=0;i<n;i++)
        {

          a[i]=sc.nextInt();



        }
        int k=0;
              int b[]=new int[n];
               Stack <Integer> st=new Stack<>();

              for(int i=n-1;i>=0;i--)
```

```
        {

            while(!st.isEmpty() && a[i]>=a[st.peek()])
                // very important line
            {
                st.pop();

            }
              k=i;
            if(!st.isEmpty())
            {
                b[i]=st.peek()-k;

            }
            else //when empty stack.
            {
                b[i]=-1;

            }
            st.push(k);



        }


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

 System.out.print(b[i]+" ");
```

```
        }
         System.out.print("\n");

}
        }
}
```