

Is Height Sorted?

Problem statement :

There are **N** students in the class. Teacher want students to stand in a Queue in the order of their Height. Help the teacher whether students stood in their height wise or not.

If they are in the order of their height, Output "**YES**" or else "**NO**".

NOTE:

1.Output is Case sensitive "**Yes**" is different from "**YES**".

Input Format

- First line of input contains **T** number of test cases.
- First line of each test case contains the number of students **N**.
- Second line of each test case contains the heights of the students.

Constraints

- $0 \leq T \leq 1000$
- $0 \leq N \leq 10^6$
- $0 \leq A[i] \leq 200$

Output Format

- For each test case output "YES" if heights are in the order.
- Else output "NO".

Sample Input 0

```
1
3
6 3 30
```

Sample Output 0

```
NO
```

Explanation 0

- As 6 and 3 are not in ascending order.

Sample Input 1

```
1
3
6 30 3
```

Sample Output 1

```
NO
```

Explanation 1

- As 30 and 3 are not in ascending order.

Sample Input 2

```
3
4
6 8 32 90
5
57 23 67 13 56
2
1 5
```

Sample Output 2

```
YES
NO
YES
```

Explanation 2

- As 6 and 3 are not in ascending order.

Solution in C:

```
#include <stdio.h>

#include <string.h>

#include <math.h>

#include <stdlib.h>


int main() {

    int t;

    scanf("%d",&t);
    while(t--){

        int n,i;

        scanf("%d",&n);

        int a[n];

        int flag=0;

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

            scanf("%d",&a[i]);

        }

        for(i=0;i<n-1;i++){

            if(a[i]>a[i+1]){

                flag=1;

            }

        }

        if(flag==0){

            printf("YES\n");

        }else{

            printf("NO\n");

        }

    }

}
```

```
    }

    }

    return 0;

}
```

Solution in JAVA:

```
import java.io.*;

import java.util.*;

import java.text.*;

import java.math.*;

import java.util.regex.*;

public class Solution {

    public static void main(String[] args) {

        /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your
class should be named Solution. */

        Scanner s1 = new Scanner(System.in);

        int t=s1.nextInt();

        while(t-->0){

            int n = s1.nextInt();

            int[] a=new int[n];

            int flag=0;

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

                a[i]=s1.nextInt();

            }

            for(int i=0;i<n-1;i++){

                if(a[i]>a[i+1]){
```

```
        flag=1;
    }

}

if(flag==0){
    System.out.println("YES");
}else{
    System.out.println("NO");
}

}

}

}
```