Sort Checker

You are given an array A

and an array B of the same size. You have to print "yes" if B is the sorted version of A

and "no" otherwise

Input

First line contains a single integer T

, the number of testcases

The first line of each testcase contains a single integer n

, the number of elements in the arrays

The second line of each testcase contains n

space separated integers denoting the array A

The third line of each testcase contains n

space separated integers denoting the array B

Output

Print one line for each testcase, "yes" or "no"

Constraints

$1 \leq T \leq 105$

$1 \leq \sum \text{over all testcases} n \leq 105$

Sample Input

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

Sample Output

```
no
no
yes
```

Explanation

All three testcases have the same array A

, and the sorted version of A

is {1, 2, 2, 3}

Therefore only the third testcase contains "yes", rest contain "no"