

DSA Lab 9

Q3 Write a program to check if a given binary tree is a BST or not .

CONSTRAINTS

$1 \leq T \leq 100$

$1 \leq N \leq 10000$

$1 \leq A_i \leq 100000$

Input

First line has T, no. Of testcases.

First line of test case has N, no of nodes in list

This is followed by N space separated integers A_i .

Sample

Input #1

1

10

4 5 1 6 7 3 10 12 11 8

Output

NO

Input #2

1

5

4 2 5 1 3

Output

YES