



Is This A Binary Search Tree

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Problem

Submissions

Leaderboard

Discussions

You have already seen how a binary tree can be represented in Java, by using a `TreeNode` class that typically looks like:

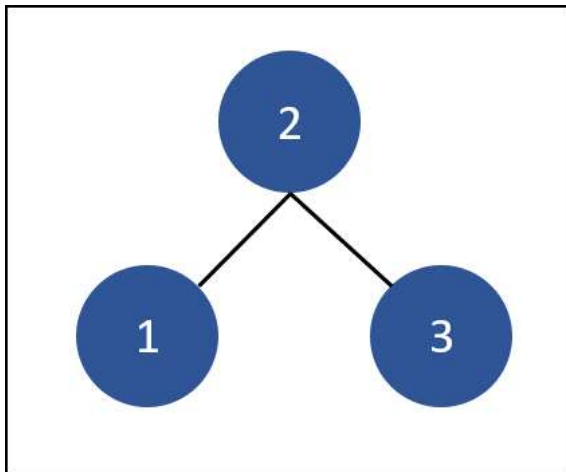
```
class TreeNode {  
    int data;  
    TreeNode left;  
    TreeNode right;  
}
```

However, there also exists a more convenient array representation:

Any binary tree can be represented using a 1-based indexed array, with the following rules:

- The root element is at index 1
- For any element at index k :
 - The left child of the element is at index $2*k$
 - The right child of the element is at index $2*k + 1$
- Null elements are either outside the bounds of the array, or are represented as `-1`.

So for example, the following tree:



Can be represented in array form as:

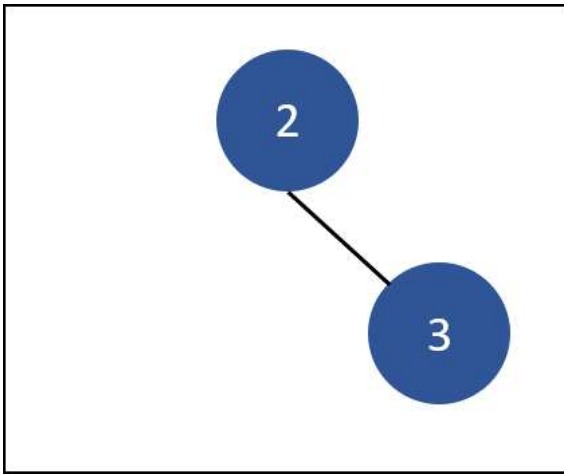
2 1 3

and the following tree:

[f](#) [t](#) [in](#)**Contest ends in an hour****Submissions:** 0**Max Score:** 100**Difficulty:** Easy**Rate This Challenge:**

☆☆☆☆☆

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can be represented in array form as:

2-13

Note that both of the above are valid binary search trees.

Input Format

You are given an array of arbitrary length. Determine whether it represents a valid binary search tree.

Constraints

-

Output Format

Print "YES" (without the quotes) if the array represents a valid binary search tree, else print "NO"

Sample Input 0

2 13

Sample Output 0

YES

Sample Input 1

1-13

Sample Output 1

YES

Current Buffer (saved locally, editable)  

Java 8



```
1 import java.io.*;
2 import java.util.*;
3
4 public class Solution {
5
6     public static void main(String[] args) {
7         /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution. */
8     }
9 }
```

Line: 1 Col: 1

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