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## Special Tree

You are given a rooted tree with  $N$  nodes. The tree is rooted at node **1**. Each node of the tree has an integer value associated with it. Now, you are given  $Q$  queries on this tree. The queries are:

**1**  $X$   $Y$  Change the value of node  $X$  to  $Y$ .

**2**  $X$   $Y$  Check if there is any node in the subtree of node  $X$  whose value is equal to  $Y$ . If there is any node then print **YES** else print **NO**.

### Input

The first line contains an integer  $N$  as input that denotes total nodes in the tree.

Next line contains  $N$  space-separated integers where the  $i$ -th integer denotes value associated with the node number  $i$  in the tree.

Next  $N - 1$  lines contain a pair of integers in the tree that denotes there is an edge between the two nodes in the tree.

Next line contains an integer  $Q$  as input that denotes the total number of queries.

Each of the next  $Q$  lines contain the description of the queries i.e. three integers in each line.

### Output

For each query of type **2** print the answer in a new line.

### Constraints

$$1 \leq N, Q \leq 10^5$$

$$1 \leq X \leq N$$

$$1 \leq Y \leq 10^6$$

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#### Sample Input

```
5
9 8 5 2 10
1 2
2 3
2 4
1 5
4
2 2 10
2 2 5
1 4 10
2 2 10
```

#### Sample Output

```
NO
YES
YES
```

### Explanation

In the sample test case there is no node with value **10** in the subtree of node **2** so the answer for the first query of type **2** is **NO**. There is a node number **3** whose value is **5** and is present in the subtree of node **2** so the answer for that query is **YES**.

Now we assign value **10** to node **4**.

In the last query of type **2** there is a node **4** with value **10** so the answer for that query is **YES**.