Problem 1. Tree Matching (1 point)

Timelimit: 1 second

Problem Statement

Write a program that takes a rooted tree and determines whether it has a perfect matching.

Input Statement

First line contains t which is the number of test cases.
First line of each test case contains n which is the number of nodes ($n < 1,000,000$).
We label the root node as Node 1 and other $n-1$ nodes as Node $i (2 \leq i \leq n)$.
The following line contains $n-1$ numbers $p_2, ...p_{n-1}$, each p_i denotes the parent of Node i $(1 \leq p_i < i)$.

Output Statement

For each test case, print "YES" if the tree has perfect matching, and "NO" otherwise in a line.

Input Example

```
5
6
1 2 3 4 5 // skewed tree
6
1 1 1 1 1 // root is connected to all others
7
1 1 2 2 3 3 // full binary tree
8
1 1 2 2 3 3 7 // add a node to test case #3
8
1 1 2 4 3 3 7 // draw it by yourself
```

Output Example

```
YES
YES
NO
NO
```