Problem J
Sliding Puzzle on Tree

Time Limit: 2 seconds

You are given a tree with N vertices numbered 1 through N. The i-th edge of the tree connects vertices u_i and v_i. Initially, for each i ($1 \leq i \leq N$), vertex i contains one stone if $A_i = 1$ and no stone if $A_i = 0$.

You can repeatedly perform the following operation:

- Select an unchosen edge with a stone on exactly one of its endpoints, and move that stone to the other endpoint.

Determine whether you can perform the operation exactly $N - 1$ times. If possible, output the order in which the edges are selected.

Input

The input contains one or more test cases. The first line of the input contains an integer T ($1 \leq T \leq 10^5$), which is the number of test cases. The descriptions of the T test cases follow, each in the following format.

N
u_1 v_1
u_2 v_2
$\vdots$
u_{N-1} v_{N-1}
A_1 A_2 $\ldots$ A_N

The first line contains an integer N ($2 \leq N \leq 2 \times 10^5$) representing the number of vertices.

For each i ($1 \leq i \leq N - 1$), the i-th of the following $N - 1$ lines contains two integers u_i and v_i ($1 \leq u_i, v_i \leq N$) separated by a space, representing that the i-th edge connects vertices u_i and v_i. It is guaranteed that the given graph is a tree.

The last line contains N integers $A_1, A_2, \ldots, A_N$ ($A_i \in \{0, 1\}$) separated by spaces. A_i represents whether a stone is initially placed on vertex i.

The sum of N over all test cases does not exceed 2×10^5.

Output

For each test case, print the answer as follows.

If it is impossible to perform the operation exactly $N - 1$ times, output `No` on a single line.

If it is possible, output `Yes` on the first line, followed by the sequence of edges on the second line in the following format:

e_1 e_2 $\ldots$ e_{N-1}

Here, e_k ($1 \leq e_k \leq N - 1$) represents the index of the edge selected in the k-th operation. If there are multiple valid sequences, you can output any of them.

Sample Input	Sample Output
3 5 1 2 2 3 2 4 2 5 1 1 1 0 0 2 1 2 0 0 9 1 2 2 3 2 4 4 5 4 6 6 7 6 8 6 9 0 0 1 0 1 1 0 1 1	Yes 3 2 4 1 No Yes 6 7 4 2 1 3 5 8