1009 ☒☒☒☒

Problem Description

n $1, 2, 3, \cdots, n$ ☒☒☒☒ i $1 \leq i \leq n$ p_i $n-1$ ☒☒☒☒

i $1 \leq i \leq n$ ☒☒ j $1 \leq j \leq n$ $i \neq j$

☒☒☒☒ $1, 2, 3, \cdots, n$ T $[1, n]$ a i $1 \leq i \leq n$ $\mathrm{dis}(a_i, a_{(i \bmod n)+1}) \leq p_{a_i}$ $\mathrm{dis}(u, v)$ u, v T $\bmod$ $3 \bmod 2 = 1, (-7) \bmod 3 = 2$

Input

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T $1 \leq T \leq 10^6$

n $2 \leq n \leq 10^5, 2 \leq \sum n \leq 10^6$

n $p_1, p_2, p_3, \cdots, p_n$ $0 \leq p_1, p_2, p_3, \cdots, p_n < n$

Output

NO

YES

Sample Input

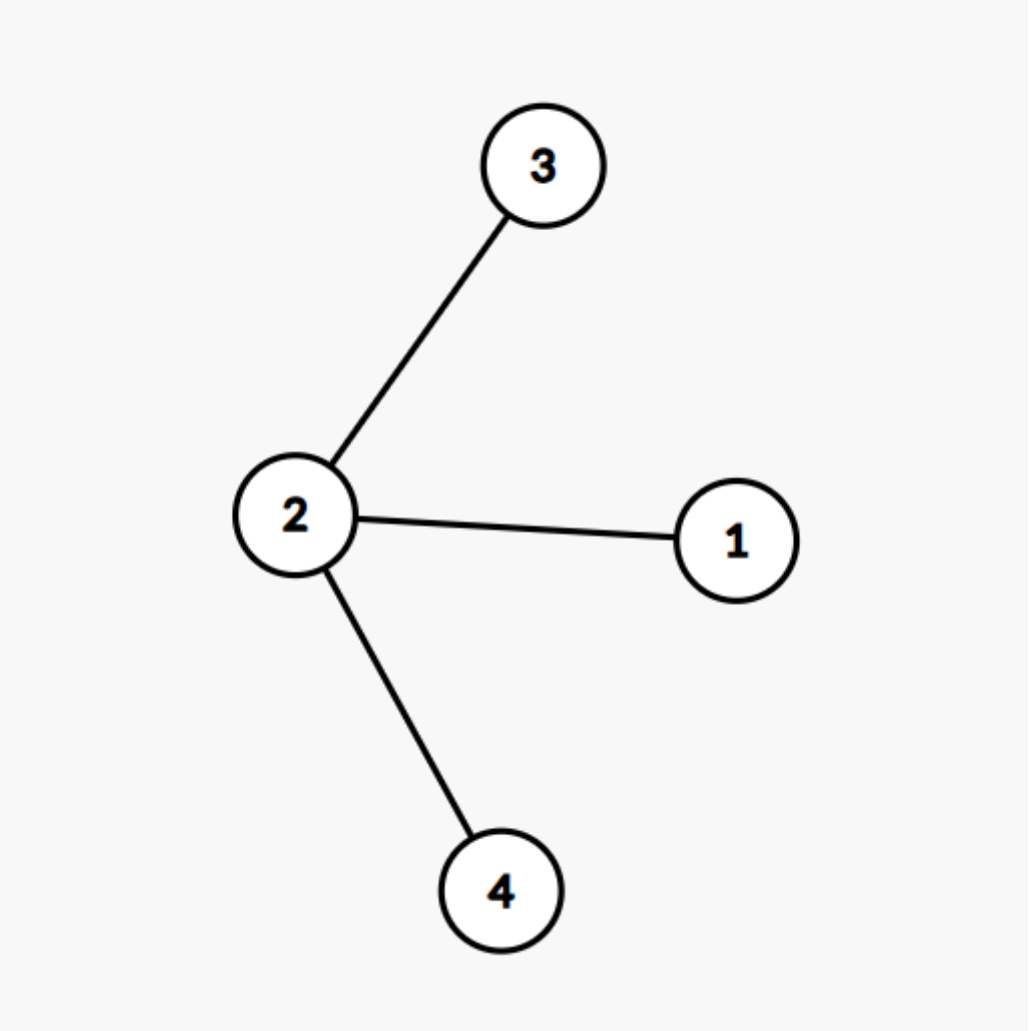
```
5
4
2 1 2 2
5
4 1 1 1 1
5
0 2 0 2 4
6
1 3 1 2 1 1
6
2 2 2 2 1 1
```

Sample Output

```
YES
YES
NO
NO
YES
```

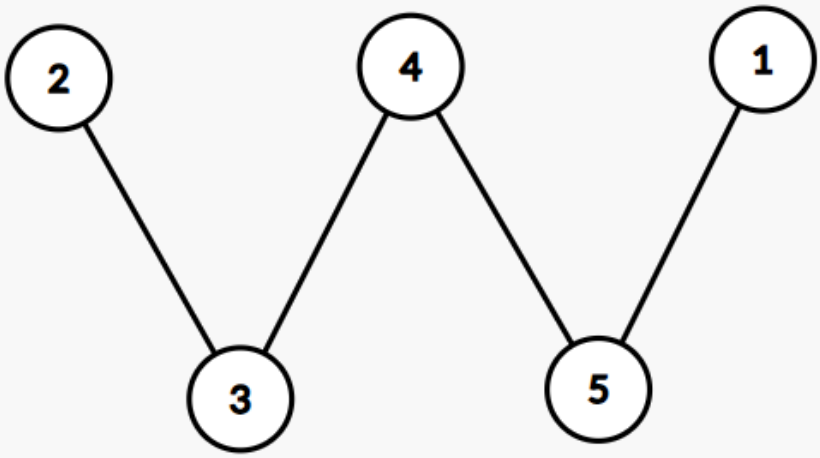
Hint

$a = [1, 2, 3, 4]$



- $a_1 = 1, a_2 = 2$ 1 $1 \leq p_{a_1} = 2$
- $a_2 = 2, a_3 = 3$ 1 $1 \leq p_{a_2} = 1$
- $a_3 = 3, a_4 = 4$ 2 $2 \leq p_{a_3} = 2$
- $a_4 = 4, a_1 = 1$ 2 $2 \leq p_{a_4} = 2$

$a = [2, 3, 4, 5, 1]$



- $a_1 = 2, a_2 = 3$ $1 \ 1 \leq p_{a_1} = 1$
- $a_2 = 3, a_3 = 4$ $1 \ 1 \leq p_{a_2} = 1$
- $a_3 = 4, a_4 = 5$ $1 \ 1 \leq p_{a_3} = 1$
- $a_4 = 5, a_5 = 1$ $1 \ 1 \leq p_{a_4} = 1$
- $a_5 = 1, a_1 = 2$ $4 \ 4 \leq p_{a_5} = 4$