

Problem B. Permutation Check

Time limit 2000 ms
Mem limit 1048576 kB

Problem Statement

You are given a sequence of N integers between 1 and N (inclusive): $A = (A_1, A_2, \dots, A_N)$.

Determine whether A is a permutation of $(1, 2, \dots, N)$.

Constraints

- $1 \leq N \leq 10^3$
- $1 \leq A_i \leq N$
- All values in input are integers.

Input

Input is given from Standard Input in the following format:

```
N
A1 A2 ... AN
```

Output

If A is a permutation of $(1, 2, \dots, N)$, print **Yes** ; otherwise, print **No** .

Sample 1

Input	Output
5 3 1 2 4 5	Yes

$(3, 1, 2, 4, 5)$ is a permutation of $(1, 2, 3, 4, 5)$, so we should print **Yes** .

Sample 2

Input	Output
6 3 1 4 1 5 2	No

(3, 1, 4, 1, 5, 2) is not a permutation of (1, 2, 3, 4, 5, 6), so we should print **No**.

Sample 3

Input	Output
3 1 2 3	Yes

Sample 4

Input	Output
1 1	Yes