# Security Bijective Functions

Now that we know about one-to-one functions, let's talk about *onto* functions and *bijective* functions.

A function $f : X \to Y$ is *onto* if and only if each element in the co-domain $Y$ is the image of, at least, one element in the domain $X$. That is:

$$Im(f) = Y$$

If the function $f$ is both *one-to-one* and *onto* then $f$ is a *bijection* from $X$ to $Y$ or, equivalently, $f : X \to Y$ is a bijective function.

In this task, you'll be given an integer $n$ and a function $f : X \to X$ where $X = \{1, 2, 3, \ldots, n\}$. Determine whether the given function is a bijective function or not.

## Constraints

$$1 \leq n \leq 20$$

## Input Format

There are $2$ lines in the input.
The first line contains a single positive integer $n$.
The second line contains $n$ space separated integers, the values of $f(1), \ f(2), \ f(3), \ \ldots, \ f(n)$ , respectively.

## Output Format

On a single line, output "*YES*" if $f$ is bijective. Otherwise, output "*NO*".

## Sample Input

```
3
1 2 3
```

## Sample Output

```
YES
```

## Explanation

Basically, this is the function $f(x) = x$.