Problem S. 0 or 1 Swap

Time limit 2000 ms
Mem limit 1048576 kB

Problem Statement

We have a sequence $p = \{p_1,\ p_2,\ \ldots,\ p_N\}$ which is a permutation of $\{1,\ 2,\ \ldots,\ N\}$.

You can perform the following operation at most once: choose integers i and j $(1 \leq i < j \leq N)$, and swap p_i and p_j. Note that you can also choose not to perform it.

Print `YES` if you can sort p in ascending order in this way, and `NO` otherwise.

Constraints

- All values in input are integers.
- $2 \leq N \leq 50$
- p is a permutation of $\{1,\ 2,\ \ldots,\ N\}$.

Input

Input is given from Standard Input in the following format:

N
$p_1\ p_2\ \cdots\ p_N$

Output

Print `YES` if you can sort p in ascending order in the way stated in the problem statement, and `NO` otherwise.

Sample 1

Input	Output
5 5 2 3 4 1	YES

You can sort p in ascending order by swapping p_1 and p_5.

Sample 2

Input	Output
5 2 4 3 5 1	NO

In this case, swapping any two elements does not sort p in ascending order.

Sample 3

Input	Output
7 1 2 3 4 5 6 7	YES

p is already sorted in ascending order, so no operation is needed.