Ada and Unstable Sort

Ada the Ladybug had a lecture about algorithms. She learned that sorting can be done in O(NlogN) time. She also learned concept of **stable sort**. For those who missed the lecture, it means that as long as there are two equal elements in the array their mutual position **won't** change after the sort.

Ada wanted to come up with something new, so she proposed **unstable sort**. It is sort with following property: "As long as there are two equal elements in the array their mutual position **will** change after the sort".

As Ada has only theoretical knowledge about it, she has asked you to construct such algorithm for her.

Input

The first line of each test-case will contain an integer $\mathbf{1 \le N \le 10^5}$, the length of an array.

The next line will contain **N** integers $\mathbf{1 \le A_i \le 10^5}$, the elements of the array.

Output

For each test-case, print **N** numbers, the indexes of each element on which it was in original array. Indexes start with **1**.

Example Input

```
4
1 2 3 4
```

Example Output

```
1 2 3 4
```

Example Input

```
3
3 2 1
```

Example Output

```
3 2 1
```

Example Input

```
6
6 6 6 6 6 6
```

Example Output

6 5 4 3 2 1

Example Input

5
5 5 2 2 3

Example Output

4 3 5 2 1

Example Input

6
1 2 1 2 1 2

Example Output

5 3 1 6 4 2