Problem - Remove Duplicates After Sorting

Problem Statement

You are given an array of integers **arr** of length **n**. The array is **not necessarily sorted**. Your task is to:

1. Sort the array in **non-decreasing order**.
2. Remove all duplicate elements while maintaining the relative order.
3. Print the resulting array.

Input

The input consists of two lines:

1. **First line**: An integer n $(1 \leq n \leq 10^5)$— the number of elements in the array.
2. **Second line**: n space-separated integers $a_1, a_2, a_3, ..., a_n$ $(-10^9 \leq a_i \leq 10^9)$ — the elements of the array.

Output

Print a single line containing the modified array after:

1. Sorting it in **non-decreasing order**.
2. Removing all duplicate elements while maintaining their relative order.

Test Cases

Input	Output
6 4 2 2 3 1 4	1 2 3 4
Explanation 1. **Sorting the array** → **[1, 2, 2, 3, 4, 4]** 2. **Removing duplicates** → **[1, 2, 3, 4]**	