Largest Permutation

Time Limit: 1.0s Memory Limit: 256M

You are given an array of N integers which is a permutation of the first N natural numbers. You can swap any two elements of the array. You can make at most K swaps. What is the largest permutation, in numerical order, you can make?

Input Specification

The first line of the input contains two integers, N and K, the size of the input array and the maximum swaps you can make, respectively. The second line of the input contains a permutation of the first N natural numbers.

Output Specification

Print the lexicographically largest permutation you can make with at most K swaps.

Constraints

 $1 \le N \le 10^5$ $1 \le K \le 10^9$

Sample Input 1

5 1 4 2 3 5 1

Sample Output 1

5 2 3 4 1

Explanation of Output for Sample Input 1

You can swap any two numbers in [4, 2, 3, 5, 1] and see the largest permutation is [5, 2, 3, 4, 1].

Sample Input 2

3 1 2 1 3

Sample Output 2

3 1 2

Explanation of Output for Sample Input 2

With 1 swap we can get [1, 2, 3], [3, 1, 2] and [2, 3, 1], out of these [3, 1, 2] is the largest permutation.

Sample Input 3

2 12 1

Sample Output 3

2 1

Explanation of Output for Sample Input 3

We can see that $\left[2,1\right]$ is already the largest permutation. So we don't need any swaps.

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