

# Largest Permutation

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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

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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

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

## Constraints

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

## Sample Input 1

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```
5 1
4 2 3 5 1
```

## Sample Output 1

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```
5 2 3 4 1
```

## Explanation of Output for Sample Input 1

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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

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```
3 1
2 1 3
```

## Sample Output 2

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```
3 1 2
```

## Explanation of Output for Sample Input 2

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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

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```
2 1
2 1
```

## Sample Output 3

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```
2 1
```

## Explanation of Output for Sample Input 3

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

Original Problem Author: MeHdi\_KaZemI8; Problem Resource: [Hackerrank](#)