

## **402. Remove K Digits**

Given a non-negative integer *num* represented as a string, remove *k* digits from the number so that the new number is the smallest possible.

**Note:**

- The length of *num* is less than 10002 and will be  $\geq k$ .
- The given *num* does not contain any leading zero.

**Example 1:**

Input: num = "1432219", k = 3

Output: "1219"

Explanation: Remove the three digits 4, 3, and 2 to form the new number 1219 which is the smallest.

**Example 2:**

Input: num = "10200", k = 1

Output: "200"

Explanation: Remove the leading 1 and the number is 200. Note that the output must not contain leading zeroes.

**Example 3:**

Input: num = "10", k = 2

Output: "0"

Explanation: Remove all the digits from the number and it is left with nothing which is 0.