The set [1, 2, 3, ..., n] contains a total of n! unique permutations.

By listing and labeling all of the permutations in order, we get the following sequence for n = 3:

1. "123"
2. "132"
3. "213"
4. "231"
5. "312"
6. "321"

Given n and k, return the kth permutation sequence.

**Example 1:**

Input: n = 3, k = 3  
Output: "213"

**Example 2:**

Input: n = 4, k = 9  
Output: "2314"

**Example 3:**

Input: n = 3, k = 1  
Output: "123"

**Constraints:**

* 1 <= n <= 9
* 1 <= k <= n!