

# Permutation Sequence

Question

Solution

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Total Accepted: **38298** Total Submissions: **166587** Difficulty: **Medium**

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

By listing and labeling all of the permutations in order,

We get the following sequence (ie, for  $n = 3$ ):

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

Given  $n$  and  $k$ , return the  $k^{\text{th}}$  permutation sequence.

**Note:** Given  $n$  will be between 1 and 9 inclusive.

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Python ▼



```
1 class Solution(object):
2     def getPermutation(self, n, k):
3         """
4         :type n: int
5         :type k: int
6         :rtype: str
7         """
8         per = [1 for i in range(n)]
9         for i in range(1,n):
10             per[i] = per[i-1]*i
11         str = [chr(ord('0')+i) for i in range(1,n+1)]
12         1=0
13         1=0
```

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```
13         while i<n:
14             j=i
15             while j<n and k > per[n-i-1]:
16                 k-=per[n-i-1]
17                 j+=1
18             tmp = str[j]
19             while j>i:
20                 str[j] = str[j-1]
21                 j-=1
22             str[j] = tmp
23             i+=1
24         return "".join(str)
```

Custom Testcase ☐

Run Code

Submit Solution

Run Code Status: Finished

Run Code Result:



Your input

9  
76000

Your answer

"291647583"

Expected answer

"291647583"

Runtime: 36 ms

Submission Result: Accepted (/submissions/detail/40493796/)

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