

61 rotate list

🕒 Created	@March 11, 2022 11:06 PM
⋮ Tags	Medium
🔗 link	https://leetcode.com/problems/rotate-list/
# Problem Number	61
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Description

Given the `head` of a linked list, rotate the list to the right by `k` places.

```
# Definition for singly-linked list.
# class ListNode:
#     def __init__(self, val=0, next=None):
#         self.val = val
#         self.next = next
class Solution:
    def rotateRight(self, head: Optional[ListNode], k: int) -> Optional[ListNode]:
        # close the ll
        if head is None or k == 0:
            return head
        length = 1
        copy_head = head
        while copy_head.next is not None:
            copy_head = copy_head.next
            length += 1
        copy_head.next = head

        # find new head
        # new head is k places from end
        k = k % length
        num_iter = length - k
        new_head = head
        prev = None
        while num_iter > 0:
            num_iter -= 1
            prev = new_head
            new_head = new_head.next
```

```
prev.next = None  
return new_head
```