AlgoExpert Quad Layout Python 12px Sublime Monok

Prompt Scratchpad Our Solution(s) Video Explanation Run Code

## Solution 1

```
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 1
 2
 3
     \# O(n) time | O(1) space - where n is the number of nodes in the Linked List
 4

▼ def shiftLinkedList(head, k):
 5
         listLength = 1
         listTail = head
 6
 7 ▼
         while listTail.next is not None:
 8
            listTail = listTail.next
 9
             listLength += 1
10
         offset = abs(k) % listLength
11
         if offset == 0:
12 ▼
             return head
13
14
         newTailPosition = listLength - offset if k > 0 else offset
15
16
         newTail = head
17 ▼
         for i in range(1, newTailPosition):
            newTail = newTail.next
18
19
         newHead = newTail.next
20
         newTail.next = None
21
         listTail.next = head
22
23
         return newHead
24
25
     # This is the class of the input linked list.
26
27 ▼ class LinkedList:
28 ▼ def __init__(self, value):
             self.value = value
29
            self.next = None
30
31
```