

Remove Nth Node from End of List

Question: Given a linked list, remove the nth node from the end of list and return its head.

For example:

Given linked list: 1->2->3->4->5, and n = 2.

After removing the second node from the end, the linked list becomes 1->2->3->5.

Note: Given n will always be valid. Try to do this in one pass.

Solutions:

class ListNode:

```
def __init__(self, x):
    self.val = x
    self.next = None
```

class Solution:

```
def getlength(self, head):
    res = 0
    while(head):
        res += 1
        head = head.next
    return res
```

```
def removeNthFromEnd(self, head, n):
    """
    :type head: ListNode
```

```

:type n: int
:rtype: ListNode
"""

if self.getlength(head)==n:
    return head.next

node = head
for i in range(self.getlength(head)-n-1):
    node = node.next
node.next = node.next.next
return head

def printll(self, node):
    while node:
        print ( node.val )
        node = node.next

if __name__ == '__main__':
    ll1, ll1.next, ll1.next.next = ListNode(0), ListNode(1), ListNode(5)
    Solution().printll( Solution().removeNthFromEnd(ll1,2) )

```