019. Remove Nth Node From End of List

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• Linked List+Two Pointers

Description

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.

1. Thought Line

2. Linked List+Two Pointers

```
class Solution {
   ListNode* removeNthFromEnd(ListNode* head, int n) {
       int sizeList = 0;
       ListNode* node = head;
       while(node!=nullptr){
           ++sizeList;
           node = node->next;
       if(n<1 || n>sizeList) return head;
       ListNode* dummyHead = new ListNode(0);
       dummyHead->next = head;
       int count = 0;
       ListNode* findTheNodeBeforeDeleteNode = dummyHead;
       ListNode* findTheNodeOfDeleteNode = head;
       while(count<sizeList - n){</pre>
           findTheNodeBeforeDeleteNode = findTheNodeBeforeDeleteNode->next;
           findTheNodeOfDeleteNode = findTheNodeOfDeleteNode->next;
```

```
}
findTheNodeBeforeDeleteNode->next = findTheNodeOfDeleteNode->next;
findTheNodeOfDeleteNode->next = nullptr;
return dummyHead->next;
}
};
```