19. Remove Nth Node From End of List

Given a linked list, remove the n-th node from the end of list and return its head.

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.
```

- 兩個pointer(cur & pn)相差n個長度，一起往前移動，當 pn到達結尾，cur->next就是要remove的node

```c
/**
 * Definition for singly-linked list.
 * struct ListNode {
 *     int val;
 *     struct ListNode *next;
 * };
 */

struct ListNode* removeNthFromEnd(struct ListNode* head, int n)
{
    if (head->next == NULL)
        return NULL;

    struct ListNode *cur = head, *pn = head;
    int len = 0;

    do {
        pn = pn->next;
        len += 1;
    } while (len < n);

    while (pn != NULL) {
        pn = pn->next;
        len += 1;
        if (pn != NULL)
            cur = cur->next;
    }

    if (len == n) {
        head = head->next;
    } else {
        cur->next = cur->next->next;
    }

    return head;
}
```