Intersection of Two Linked Lists

Write a program to find the node at which the intersection of two singly linked lists begins.

For example, the following two linked lists:

A: a1 → a2

↘

c1 → c2 → c3

↗

B: b1 → b2 → b3

begin to intersect at node c1.

**Notes:**

* If the two linked lists have no intersection at all, return null.
* The linked lists must retain their original structure after the function returns.
* You may assume there are no cycles anywhere in the entire linked structure.
* Your code should preferably run in O(n) time and use only O(1) memory.

思路：从链表的长度上考虑。交汇以后的长度肯定是相同的，所以两个链表的长度差就是链表在交汇之前的长度差。长的链表先走长度差步，接下在两个链表再同时开始一步一步的走就一定会走到交汇点。

求长度时可以先判断一下最后一个节点是否相同，若不相同就可以说明没有交汇，直接返回。