# [相交链表](https://leetcode-cn.com/explore/interview/card/bytedance/244/linked-list-and-tree/1024/)

## 题目

编写一个程序，找到两个单链表相交的起始节点。

## 解题思路

1. 首先将两个链表中长的一个向前遍历，直到两个链表长度一致
2. 两个链表同时向前遍历，便可找到交点

public ListNode getIntersectionNode(ListNode headA, ListNode headB) {
 if (headA == null || headB == null) {
 return null;
 }

 if (headA == headB) {
 return headA;
 }

 int lenA = 1;
 int lenB = 1;
 ListNode temp = headA;
 while (temp.next != null) {
 temp = temp.next;
 lenA++;
 }

 ListNode tailA = temp;

 temp = headB;
 while (temp.next != null) {
 temp = temp.next;
 lenB++;
 }

 ListNode tailB = temp;
 if (tailB != tailA) {
 return null;
 }

 if (lenA > lenB) {
 for (int i = 0; i < lenA - lenB && headA != null; i++) {
 headA = headA.next;
 }

 } else if (lenA < lenB) {
 for (int i = 0; i < lenB - lenA && headB != null; i++) {
 headB = headB.next;
 }
 }

 while (!headA.equals(headB)) {
 headA = headA.next;
 headB = headB.next;
 }

 return headA;
}