## 得到链表中点元素

给定一个链表,编写一个函数返回链表的中间节点 例:

Input: 1 -> 3 -> 5 -> 7 return 3

Input: 1 -> 3 -> 5 -> 7 -> 9 return 5

```
public ListNode getMiddleNode(ListNode head) {
   int length = getLength(head);
   int index = (length - 1) / 2;
   ListNode curNode = head;
   while (index-- != 0) {
        curNode = curNode.next;
   return curNode;
private int getLength(ListNode head) {
   ListNode cur = head;
   int length = 0;
   while (cur != null) {
        length++;
       cur = cur.next;
   return length;
```

```
public ListNode getMiddleNode(ListNode head) {
   ListNode fast = head;
   ListNode slow = head;
   while (fast.next != null && fast.next.next != null) {
      fast = fast.next.next;
      slow = slow.next;
   }
   return slow;
}
```