

Given a non-empty, singly linked list with head node, return a middle node of linked list. If there are two middle nodes, return the second middle node.

C++:

```
1 /**
2  * Definition for singly-linked list.
3  * struct ListNode {
4  *     int val;
5  *     ListNode *next;
6  *     ListNode(int x) : val(x), next(NULL) {}
7  * };
8  */
9 class Solution {
10 public:
11     ListNode* middleNode(ListNode* head) {
12
13     }
14 };
```

Sample input 1:

[1, 2, 3, 4, 5]

Sample output 2:

Node 3 from this list (Serialization: [3,4,5]) The returned node has value 3. (The judge's serialization of this node is [3,4,5]). Note that we returned a ListNode object ans, such that: ans.val = 3, ans.next.val = 4, ans.next.next.val = 5, and ans.next.next.next = NULL.

Sample input 1:

[1, 2, 3, 4, 5, 6]

Sample output 2:

Node 4 from this list (Serialization: [4,5,6]) Since the list has two middle nodes with values 3 and 4, we return the second one.