

# DAA SESSION-7

## LEETCODE QUESTION-876:-

The screenshot shows a LeetCode problem page for "876. Middle of the Linked List".

**Description:** Given the head of a singly linked list, return the middle node of the linked list. If there are two middle nodes, return the second middle node.

**Example 1:** A linked list with 5 nodes labeled 1, 2, 3, 4, 5. Node 3 is highlighted in red.

**Input:** head = [1,2,3,4,5]  
**Output:** [3,4,5]  
**Explanation:** The middle node of the list is node 3.

**Example 2:** A linked list with 6 nodes labeled 1, 2, 3, 4, 5, 6. Nodes 3 and 4 are highlighted in red.

**Input:** head = [1,2,3,4,5,6]  
**Output:** [4,5,6]  
**Explanation:** Since the list has two middle nodes with values 3 and 4, we return the second one, which is 4.

**Code:** Accepted (36 / 36 testcases passed)

**Runtime:** 0 ms | Beats 100.00% (India)  
**Memory:** 10.02 MB | Beats 25.07%

You must run your code first

## LEETCODE QUESTION-141:-

The screenshot shows the LeetCode platform interface for problem 141, "Linked List Cycle".

**Description:** Given `head`, the head of a linked list, determine if the linked list has a cycle in it.

**Problem Statement:** There is a cycle in a linked list if there is some node in the list that can be reached again by continuously following the next pointer. Internally, `pos` is used to denote the index of the node that tail's next pointer is connected to. **Note that pos is not passed as a parameter.**

**Example 1:**

```
Input: head = [3,2,0,-4], pos = 1
Output: true
Explanation: There is a cycle in the linked list, where the tail connects to the 1st node (0-indexed).
```

**Runtime:** 12 ms | Beats 40.75%

**Memory:** 11.77 MB | Beats 80.02%

**Testcase:** You must run your code first

## LEETCODE QUESTION-142:-

Problem List < > ✎ Problem List

Description | Editorial | Solutions | Submissions | Note X

142. Linked List Cycle II

Solved ✓

Medium Topics Companies

Given the head of a linked list, return the node where the cycle begins. If there is no cycle, return null.

There is a cycle in a linked list if there is some node in the list that can be reached again by continuously following the next pointer. Internally, pos is used to denote the index of the node that tail's next pointer is connected to (0-indexed). It is -1 if there is no cycle. Note that pos is not passed as a parameter.

Do not modify the linked list.

**Example 1:**

**Input:** head = [3,2,0,-4], pos = 1  
**Output:** tail connects to node index 1  
**Explanation:** There is a cycle in the linked list, where tail connects to the second node.

15K 250 122 Online

Code | Accepted

All Submissions

Accepted 18 / 18 testcases passed

NIKET submitted at Jan 19, 2026 21:22

Editorial Solution

Runtime 3 ms | Beats 98.25% Analyze Complexity

Memory 11.21 MB | Beats 83.40%

Testcase | Test Result

Accepted Runtime: 0 ms

Case 1 Case 2 Case 3

Input

```
head = [3,2,0,-4]
```

## LEETCODE QUESTION-206:-

The screenshot shows the LeetCode platform interface for problem 206. The left panel displays the problem statement and two examples. Example 1 shows a linked list [1, 2, 3, 4, 5] being reversed to [5, 4, 3, 2, 1]. Example 2 shows a linked list [1, 2] being reversed to [2, 1]. The right panel shows the submission details for user NIKET, who submitted the code at Jan 19, 2026 21:46. The submission was accepted with 28 / 28 testcases passed. The runtime is 0 ms (Beats 100.00%) and memory usage is 13.52 MB (Beats 18.08%). A complexity analysis chart is also provided.

**206. Reverse Linked List**

Solved ✓

Given the `head` of a singly linked list, reverse the list, and return *the reversed list*.

**Example 1:**

**Input:** head = [1,2,3,4,5]  
**Output:** [5,4,3,2,1]

**Example 2:**

1ms 2ms 3ms 4ms

Testcase | > Test Result  
You must run your code first

439 Online

Runtime: 0 ms | Beats 100.00% ✓  
Analyze Complexity

Memory: 13.52 MB | Beats 18.08%