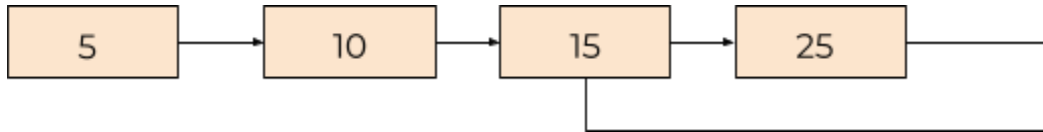# Linked List - Assignment

Do the given problems using JavaScript.

1. Write a Program to check if a given linked list contains a cycle? How do you find the starting node of the cycle?

2. Write a Program to find the length of a singly linked list?

3. Write a Program to find the middle element of a singly linked list in one pass.

4. Write a Program to find the third node from the end in a singly linked list?

5. Write a Program to add two numbers represented using a linked list, when the digits are stored in reverse order in the respective linked lists?

   Example: Input: (7 -> 0 -> 1) + (3 -> 2 -> 5)

   Output: 0 -> 3 -> 6

   Explanation: 107 + 523 = 630.

6. Write a Program to compare two strings when two linked lists of strings are given.

   Example: Input: List 1 - ["Tes","t","Boo","k"]

   List 2 - ["T","est","B","ook"]

   Output: True [As both Lists make TestBook]

7. Write a Program to sort the Linked List using Merge Sort.