Linked List assignments

1. Create Single Linked List class with following functionalities:
    a. Add at head
    b. Add at tail
    c. Delete at head
    d. Delete at tail
    e. Add after given data
    f. Delete after given data
    g. Search an element
2. Assume that we have two linked lists. Elements in individual list are unique. There may be identical elements across linked lists. Create a third list which contains only common elements across first two lists.
3. Find the sum of last ‘n’ nodes in single linked list. Where ‘n’ will be given. Sum should be calculated with one iteration.
4. Reverse the single linked list.
5. Implement split() function which splits given linked list into two separate linked lists containing alternate elements from original list.
6. Check whether given linked list is palindrome or not.
7. Write an efficient code to remove duplicate elements from single linked list. (you can make use of built in data structure “set”).
8. Find middle element of linked list without iterating all elements.
9. Find whether linked list contains cycle.