1. Draw the perfect skip list that contains the values 10, 20, 30, 40, 50, 60, 70, 80, 90.

2. List the nodes in your answer to question 1 that are referenced when you search for the following values. You can list the nodes by writing the data value in the node. So an answer could look like 80, 40, 60 which means you referenced the nodes containing 80, 40 and 60. You do not have to list when you reference the head node.

   a. 70

   b. 30

   c. 90
3. Implement the private method product in the L2 class. The implementation must be **recursive**. Do not add any parameters to the method or instance variables to the class.
public class L2 {
    //implements a linked list of ints
    private class Node {
        private int data;
        private Node next;
        private Node(int d, Node n) {
            data = d;
            next = n;
        }
    }
    private Node head;

    public L2() {
        head = null; //no sentinel node
    }

    //assume insert has been implemented and zero or more values have
    //been inserted

    public int product() {
        //return the product of the ints in the list
        //return 1 when the list is empty
        //PUT YOUR ANSWER ON THE QUESTION SHEET
        return product(head);
    }

    private int product(Node h) {
        //return the product of the ints in the list beginning
        //at h. return 1 when h is null
        //PUT YOUR ANSWER ON THE QUESTION SHEET
    }
}