

2) (10 pts) DSN (Linked Lists)

Consider storing an integer in a linked list by storing one digit in each node where the one's digit is stored in the first node, the ten's digit is stored in the second node, and so forth. Write a **recursive function** that takes in a pointer to the head of a linked list storing an integer in this fashion and returns the value of the integer. Assume that the linked list has 9 or fewer nodes, so that the computation will not cause any integer overflows. (For example, 295 would be stored as 5 followed by 9 followed by 2.) Use the struct shown below:

```
typedef struct node {
    int data;
    struct node* next;
} node;

int getValue(node *head) {

    if (head == NULL)
        return 0;
    return head->data + 10*getValue(head->next);

}
```

**Grading: 2 pts check head == NULL, 1 pt ret 0 (give full credit if base case is LL size 1),
1 pt return, 1 pt access head->data, 1 pt add, 1 pt 10*, 1 pt rec call, 2 pts parameter**