

Name: <i>(as it would appear on official course roster)</i>	
Umail address: _____@uemail.ucsb.edu	section
Optional: name you wish to be called if different from name above.	
Optional: name of "homework buddy" (leaving this blank signifies "I worked alone")	

1

h10

CS16 F19

h10: Chapter 14: Recursion

ready?	assigned	due	points
true	Mon 11/25 12:30PM	Thu 12/05 11:59PM	20

You may collaborate on this homework with AT MOST one person, an optional "homework buddy".

UPLOAD A PDF OF YOUR ANSWERS TO GRADESCOPE BEFORE THE DUE DATE. ASSOCIATE EACH QUESTION WITH A SPECIFIC PAGE IN YOUR HOMEWORK AT THE TIME OF SUBMISSION. There is NO MAKEUP for missed assignments;

Read Chapter 14 and the lecture notes.

1.(2 pts) How does a recursive function know when to stop recursing?

Please:

- No Staples.
- No Paperclips.
- No folded down corners.

2.(3 pts) What is a LIFO scheme and how does it relate to stacks?

4.(5 pts) Write a recursive function to count the number of vowels in a string.

2

h10

CS16 F19

5.(10 pts) Write a function that deletes all the nodes with a given value in a linked list and returns a pointer to the new head of the list.

```
struct Node{
    int data;
    Node* next;
}
Node* deleteNode(Node* head, int value){
```