Name:
(as it would appear on official course roster)

Umail address:	@umail.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. You don't need to turn this homework in. Please turn in the physical copy of your homework in person. Write in PEN or DARK PENCIL.

PLEASE MARK YOUR HOMEWORK CLEARLY, REGARDLESS OF IF YOU WRITE IT OUT IN INK OR PENCIL! FOR BEST RESULTS, SAVE THIS PAGE AS A PDF, THEN PRINT THE PDF.

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.

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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){
```