

CS16, 10S, **H16**, due **Wed Lecture 05.05**—Addresses. Pointers and Arrays (Etter 6.1, 6.2)—Total Points: 50  
Available online as <http://www.cs.ucsb.edu/~pconrad/cs16/10S/homework/H16>—printable [PDF](#)

Name:	Umail	
(4 pts)	Address:	@umail.ucsb.edu
_____	(4 pts)	_____

Lab Section (2 pts)—circle one:            9am   10am   11am   noon   unknown

(Note: For now, circle the lab section you are registered for on GOLD. If you need to request attendance at a different lab section because of an ACTUAL SCHEDULE CONFLICT, please email [pconrad@cs.ucsb.edu](mailto:pconrad@cs.ucsb.edu) with details)

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This assignment is due **IN Lecture on Wednesday, 05.05.**  
**It may ONLY be submitted Lecture, in Chem 1171 at 1pm on Wednesday.**  
You must come IN PERSON to turn it in during your assigned Lecture section.

**Late Policy:** No email submission allowed—and don't "slip it under my door". If you need to make it up, you must do so during office hours, or make an appointment to see me, and you must request this appointment within 48 hours of when the assignment was originally due.

**Personal Day/Sick Day policy:** Everyone is permitted one "personal day/sick day" when you get to make up a missed homework assignment for free during office hours or via appointment. After that, you may not make up the homework assignment—you can only earn back the points through extra credit opportunities.

(For more details, see the [syllabus](#) and the [homework policy](#))

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Read Section 6.1 and 6.2 in your Etter textbook—and review your lecture notes from the week of May 26, 28, 30.

In addition, keep in mind that in the textbook, Etter uses %u as the format specifier for pointers, while in lecture I tend to use %p instead.

The difference is that %u prints the address value as an "unsigned integer", in base 10, while %p prints the address value in hexadecimal.

On p. 294, there are eight practice problems—the answers to those problems can be found on p. 418 in your textbook.

Work through those problems for practice and then check your answers against those in the back of the book.

- Note, as you check your answers, that the questions go across and then down (first column is all the odd numbered problems) while the answers go down then across (first column is answers 1–4.)

Then answer the questions on the back of this sheet.

**Please turn over for more...**

## ...continued from other side

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1. (10 pts) Assume that an array `h` is defined with the following statement:

```
int h[] = {13,42,26,98,45,11,19};  
int *ptr1 = &h[1];
```

Give a diagram of memory allocation similar to the one shown in the answer on p. 418 to the practice questions.

	value	offset
h[0]		
h[1]		
h[2]		
h[3]		
h[4]		
h[5]		
h[6]		

2. Continuing with the same definitions of `h` and `ptr1` give the value of each of these expressions:

- a. (5 pts) `*h`
- b. (5 pts) `*(h+1)`
- c. (5 pts) `*h + 1`
- d. (5 pts) `*h + 2`
- e. (5 pts) `*ptr1`
- f. (5 pts) `*(ptr1 + 1)`