First name (color-in initial)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	section (10,or 11)	first name initial	last name initial
Last name (color-in initial)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z			

H06: Due Tuesday 04.16 in Lecture. Total Points: 50

Allocated objects, ArrayList vs. ordinary array, short-circuit boolean ops, foreach loop, java.blah vs. javax.blah (HFJ Ch5,6)

MAY ONLY BE TURNED IN DURING Lecture ON Tuesday 04.16, or offered in person, for in person grading, during instructor or TAs office hours.

See the course syllabus at https://foo.cs.ucsb.edu/56wiki/index.php/S13:Syllabus for more details.

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(1) (10 pts) Fill in the information below. Also, fill in the A-Z header by

- **coloring in** the first letter of your first and last name (as it would appears in Gauchospace),
- writing **either 10,11** to indicate your **discussion section** meeting time
- writing your **first and last initial** in large capital letters.

All of this helps us to manage the avalanche of paper that results from the daily homework.

name:	
umail address:	@umail.ucsb.edu

Reading Assignment:

- Review Chapter 5 in HFJ, p. **95** -124.Extra Strength Methods (and reading notes: HFJ:Chapter_5
- Read Chapter 6 in HFJ, p. **125** -164. Using the Java Library and reading notes: HFJ:Chapter_6

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(2) (6 pts) Assuming a class called Student exists, write a line of java that makes a plain old Java array of Student references of size 5. (Don't allocate the Student objects, just the array of references, initially null).

(3) (6 pts) Assuming a class called Student exists, write a line of java that makes an ArrayList of Student references. (Don't allocate the Student objects, just the ArrayList, initially empty).

(4) (6 pts) What is one advantage of using an ArrayList over a plain old Java array?

(5) Explain the difference between "short-circuit boolean" operators and "non short-circuit boolean operators" in terms of

- (6 pts) syntax (the actual symbols used)

- (6 pts) semantics (the meaning of the symbols)

(6) (4 pts) Why do some classes in the Java API have package names that start with java.blah while others have package names that start with javax.blah? What does the x mean?

(7) (6 pts) Based on your reading in HFJ Chapter 5: Java 1.5 introduced a new (to Java) kind of for loop sometimes called a "foreach" loop (even though foreach is not a keyword in Java)—your textbook calls it the "enhanced for loop". HFJ provides an overview of this kind of loop on p. 105 and 116. Write a few lines of code that declare an array of five integers, initializing them to the first five prime numbers (you can use a literal array initializer here—you don't need to write code to compute the prime numbers), and then write a foreach type loop that iterates through that array printing out the values, one on each line.