First name (color-in initial)	A	в	с	D	E	F	G	н	Ι	J	к	L	М	N	0	Р	Q	R	s	т	υ	v	w	x	Y	,	z	section (2,3,or 9)	first name initial	last name initial
Last name (color-in initial)	А	в	с	D	E	F	G	н	I	J	к	L	М	N	0	Р	Q	R	s	т	U	v	w	x	Y		z			

H04: Due Thu/Fri 01.19/01.20 in your ASSIGNED Lab Section. Total Points: 50

MAY ONLY BE TURNED IN DURING THE CLASS INDICATED ABOVE, 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/W12:Syllabus for more details.

Reading Assignment:

- Review HFJ Chapter 4 and reading notes at HFJ:Chapter_4
- Read Chapter 5 in HFJ, p. 95 -124.Extra Strength Methods (and reading notes: HFJ:Chapter_5

(1) (5 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 2, 3 or 9 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

(2) (5 pts) Write a few lines of code that demonstrate how to take a integer value that is in a String, and convert it to an integer value in an int variable. You can find an example of this in Chapter 5.

(3) (5 pts) (From Chapter 5) Write a few lines of code that demonstrate how to choose a random number between 0 and n-1 (assume that n is an int variable that has been assigned some value greater than or equal to 1).

(4) (10 pts) Based on your reading in HFJ Chapter 4, consider the following Java code.

Contents of Student.java	Contents of StudentTestDrive.java
<pre>class Student { private int perm; private String name; public int getPerm() { return perm; } public String getName() { return name; } }</pre>	<pre>public class StudentTestDrive { public static void main (String[] args) { Student s = new Student(); System.out.println("Student's perm is " + s.getPerm()); System.out.println("Student's name is " + s.getName()); } }</pre>

- Will this code produce an error message, when compiled with javac *.java and if so what? (I don't need a detailed character by character account of the error message—just a general description of what the error is will be sufficient.)
- If it does compile: will this code produce an error message, when run with java StudentTestDrive and if so what? (same as the previous question—just a general description of the error is sufficient.)
- If this code does NOT produce an error message when compiled or run, what will be the resulting output when this code is run?

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(5) (10 pts) Based on your reading on p. 79 in Chapter 4: assume you have a class for a student with attributes name (of type String) and perm (of type int). Write setters and getters for name and perm as they would appear inside the student Class. The rest of the class has been written for you below---just fill in the missing parts.

(Note that for purposes of this homework assignment, we have left out "public" and "private" since they are not yet covered in the book on p. 79, but later in the course you'd be expected to include them as appropriate.)

class Student { String name; int perm; // Now, you please fill in getters and setters for name and perm here. // For full credit, follow the naming conventions illustrated on p. 79. :}

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(6) (5 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.

(7) Pages 101-103 allude to test-driven development, or "test-first" development as part of a methodology known as "eXtreme Programming". Test-first development is only one part of the XP mindset.

- (a) (5 pts) List at least two aspects of the XP mindset that do NOT have to do with testing.
- (b) (5 pts) What are some of the reasons that writing a test first can be helpful (by "writing a test first", we mean before writing the code to be tested).