CPS 210 Lab 2

PROBLEMS — We didn't get to variables yet, so use print statements to solve (unless you already understand variables — Then feel free to use them!):

1. Write a program that displays your name two times, once per line.

2. Write a program that displays your name two times on the same line.

3. Write a program that displays your name in a box:
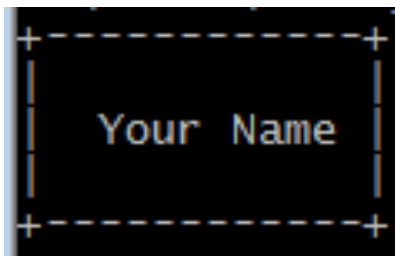
4. Write a program that displays "**Welcome to Java!**" 3 times.

5. (*Compute expressions*) Write a program that displays the result of the equation below (**Remember** — Java follows PEMDAS).

$$\frac{9.5 \times 4.5 - 2.5 \times 3}{45.5 - 3.5}$$

6. *(Summation of series)* Write a program that displays the result of:

$$1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9.$$

7. **Factorial** represented in mathematics by the symbol **!** is the product of 1 to n. For example:

$$5! = 1 \times 2 \times 3 \times 4 \times 5 = 120$$

Write a program to compute **7!** and display the result.

8. What do the following lines display? Do on paper then check by compiling and running the program Q8.java on blackboard.

a. System.out.println(2+3);
b. System.out.println("2"+3);
c. System.out.println("2"+"3");
d. System.out.println(1+2+3+"4"+5+6);
e. System.out.println("2"+3+4);
f. System.out.println("2"+(3+4));

Why do e and f display different results?

g. System.out.println('a'+1);
h. System.out.println('a'+"1"+'P');

9. Using **printf**, write a program that displays the following table. There are **6 spaces** between each column in the top row:

```
Employee:      ID:      Hourly Rate:
Sally          12345    24.50
John           55555    19.32
Billy          34109    31.21
```

10. Using **printf**, write a program that displays the following table.
There are **3 spaces** between each column in the top row:

```
Random Facts
Friend   Fav Letter   Fav Number
Jas      K            8
Gina     G            15
Cathy    B            25
```