

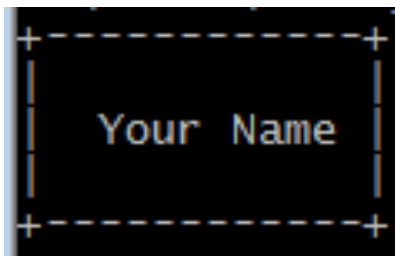
CPS 210 Lab 2

TIPS:

- Type all the programs from scratch each time. If you use copy and paste, it will take much longer to memorize code that is used often.
- Don't be worried about getting it on the first try; a lot of programming comes down to trial and error.
- Remember to save and recompile **every time** you make changes to your program.
- If you get any errors when you compile, go back and make sure you have proper **capitalization** and all of your **;** and matching **{ }**. If you can't find the error, **ask for help**.

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