

Lab 2

Notes

- Type all the programs from scratch. Do not copy and paste. It will help you to learn the syntax.
- If your program doesn't work on the first try don't worry. Debugging is a skill that you will develop over time.
- Remember to save and recompile every time you make a change to your program.
- If you get errors when you compile, go back and make sure you typed everything correctly. Proper capitalization, spelling, matching {}, etc.
- If you get stuck, ask your TA for help. That's what they are here for!

Problems

1. Create a program that prints your name to the console two times, once per line.
2. Create a program that prints your name to the console two times, on the same line.
3. Create a program that prints your name in a box:

```
+-----+
| Name  |
+-----+
```

4. Write a program that prints "Welcome to Java" 3 times.
5. 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. Write a program that prints the summation of the following series:
 $1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9$
7. **Factorial** is represented in math by the ! symbol. For example, $4! = 4 * 3 * 2 * 1 = 24$. Write a program that calculates the factorial of the number 7. **7!**
8. What do the following lines display? Do them on paper then check by compiling and running.
 - 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
Sally	12345	24.50
John	55555	19.32
Billy	34109	31.21

10) Write a program that saves the following information in variables and then prints it to the console:

Name: John Doe
Age: 20
Height: 5.11

John Doe, 20, and 5.11 should be saved in variables.