

(Basic) Methods, Math, Strings, Conditionals

Important Dates:

- Assigned: January 17, 2024
- Deadline: January 31, 2024 at 11:59 PM EST

Objectives:

- Students learn to use basic Java concepts involving different datatypes.
- Students gain experience with the Java mathematics library.
- Students work with certain string manipulation methods.
- Students begin to understand the different types of conditional statements and how they redirect program control flow.
- Students design methods to complete a task and write corresponding unit tests.

What To Do:

For each of the following problems, create a class named `ProblemX`, where `X` is the problem number. E.g., the class for problem 1 should be `Problem1.java`. Write (JUnit) tests for each method that you design in corresponding test files named `ProblemXTest`, where `X` is the problem number. Additionally, write Javadoc comments explaining the purpose of the method, its parameters, and return value. **Do not round your solutions!**

You must write sufficient tests and adequate documentation.

All problems are listed in *Teaching Java - A Test-Driven Approach*.

1. Page 18, Exercise 1.4
2. Page 18, Exercise 1.6
3. Page 18-19, Exercise 1.10
4. Page 19, Exercise 1.14
5. Page 20, Exercise 1.17
6. Page 53, Exercise 2.5
7. Page 53, Exercise 2.6
8. Page 53-54, Exercise 2.8
9. Page 54, Exercise 2.9
10. Page 54-55, Exercise 2.11
11. Page 55, Exercise 2.12
12. Page 55, Exercise 2.13