# (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