READ THIS FIRST:

Do your best to do every item on your own; if you cannot immediately do an item, go on to others and then come back to it later. Please check the resources section if you have any problems and talk with your professor if there are any further questions.

Due: Thursday, September 22, 2016.

Goals:

- Practice getting around the command line compiling and running Java programs.

- Practice getting around in and using GitHub.

- Explain some key concepts we covered in class:

  - while loops
  - do-while loops
  - for loops
  - methods

- Get some more easy lab points.

Instructions:

1. *Programming.* From your textbook (Liang), write Java programs that solve the following problems using `while` loops, `do-while` loops, or `for` loops at least once each as appropriate:

   - Problem 5.1 (with `do-while`)
   - Problem 5.7 (with `for`)
   - Problem 5.12 (with `while`)
   - Problem 5.13 (with `while`)

2. Using what you learned about methods create Java programs with methods that solve the following problems:

   - Problem 6.2
   - Problem 6.3

   Make sure you follow the style guidelines `http://www.reev.us/cmpt220f16/style.html` that were given for this course.

3. *Kattis.* Write a program, `Driver_lab3.java`, to compute the p-norm distance between pairs of points, for a given value of p.

- Read the full problem, submit your program to Kattis, and pass the online judge here:
  `https://open.kattis.com/problems/differentdistances`
- On GitHub, you will submit a screenshot of your profile showing which problems you have passed including this one. Name it `lab3_passed.png` (or .jpg) please.
- Check your code for style and make sure it follows the guidelines. Once you are sure it passes the coding style guidelines **make sure your code still works** and submit your driver on GitHub and make sure its file name and class is `Driver_lab3.java` as specified before.

Resources:

- Your textbook (Liang)!
- Project submission guidelines for this course: `www.reev.us/cmpt220f16/project_submission.html`
- Coding style guidelines for this course: `www.reev.us/cmpt220f16/style.html`
- "How to" use the command line "shell": `www.reev.us/cmpt220f16/shell.html`
- The official Java reference: `http://docs.oracle.com/javase/tutorial/collections/TOC.html`
- Stack Overflow Java Tag: `http://stackoverflow.com/questions/tagged/java`

Submission:

- Push your work to your GitHub repository before the due date (see the top of this document). Remember to include your name, the date, and the assignment in the (copious, meaningful, and accurate) commit messages. Then **double check your files are on GitHub** and that your professor has been added as a collaborator (you hopefully did this in Homework 0), his GitHub username is `pablorp80`.
- Make sure all your programs (*.java) and kattis evidence (*.png/jpg) are in a folder called `labs/3/` inside your repository folder.