## Instructions

You must stop working on the the exam by 8:00 AM on Tuesday, October 4, 2016.

This exam is not timed, but is designed to be completed in 90 minutes. You *must* complete the exam in a single sitting. Each question on the exam says how many points it is worth; unless stated otherwise, subparts have equal weight.

## Mandatory Self-Assessment for Class Participation and Pair Programming

In addition to completing this exam, you must also complete a self-assessment exercise about your wiki and piazza participation and your contributions to pair-programming. For the participation aspects, it will mostly be used to check against our own notes to make sure that your participation grade in the class is calculated correctly. You may not collude with other students in the answers you provide, nor may you discuss your answers in any way until after everyone has finished their exam. The time you take to complete this form does *not* need to be in the same sitting as the rest of the exam.

The survey form can be found at http://tinyurl.com/cs70-f16-survey1

## While reading and taking the exam

- Your writing must be legible and your intent clear. Anything that cannot be readily understood will be ignored. **Unless otherwise stated, your answers must be justified.**
- We can only give credit for work that is on the page when you turn in your exam. If you want to change your answer to a question, draw a single line through your old answer and add your new answer.
- We've tried to leave lots of whitespace for you to show your work, but you are allowed to attach extra sheets of paper to the back of the exam to show your work if that would help you.
- You may use these materials during the exam:
  - Notes you've taken in class
  - The CS 70 GitHub site, including the wiki (but you may not follow links that lead away from the CS70 GitHub organization)
  - Handouts from class
  - Course textbooks (if you have electronic versions, you may use those; but you might prefer to borrow paper copies)
  - A browser, which you can use **only** to read content in the CS70 Organization on GitHub.
- You may **not** use these materials during the exam:
  - Any materials not listed above, including: your computer (for anything other than browsing the course GitHub organization). Some of the things that you may not use on a computer include: a compiler, a terminal / shell, the git command, a browser (to visit anything other than the things listed above, including Piazza), your local clone of any of your repositories.

## After you finish the exam

- **Staple your exam** in the bottom right corner.
- Put your exam **back in the envelope** you got it in and close the tabs.
- Bring your exam to class on the due date.