

# Fall 2018—CS 42 Midterm Exam #1

Due back to Olin B161C no later than **Sunday, October 7 at 5pm.**

## Instructions

**Starting the exam:** Once you've read any page after this one, you've started the exam. There's a staple in the lower-right corner to help prevent you from starting earlier than you intended. Remove the staple before you start the exam.

**Time:** Take as much time as you need to finish the exam, with the following constraint: Once you've started the exam, you must finish it in one sitting. You may take one or two small bathroom breaks, but no larger breaks for things such as food or sleep. I designed the exam to be doable (though possibly slightly difficult) by most people in the class in around 75 minutes. So, if you give yourself a couple of hours to take the exam, that should be more than enough time.

**Resources:** You may use one, 8½" by 11" sheet of notes that you have prepared by yourself. You may **not** use any other resources, including the web, JFLAP, Logism, or a Hmmm interpreter, etc. Note that this means you may not use a computer to ask questions about the exam while you're taking it. If a question is unclear, do your best to answer it, and leave me a note about what was unclear.

**Assumptions:** If a problem describes a function's input types (e.g., an integer), you may assume that the function will receive *only* those inputs; you do not need to write code that handles other types of input. If you make other assumptions to answer a question, be sure to **state your assumptions**.

**Strategy:** Read over the entire exam before you work on any of the problems. Work to maximize points. Be sure to explain the reasoning that supports your answers. Partial credit is available for partial solutions. If you can't produce a solution but believe you can still demonstrate some knowledge about a question, leave me a note that conveys your knowledge.

**Legibility:** Your writing must be legible and your intent clear. I will have to ignore anything that I cannot easily read and understand.

**Completing the exam:** As soon as possible after you are done, **restaple your exam** in the lower-right corner. Return your exam to Olin B161C no later than Sunday at 5pm. Note that this means you should probably start before Sunday at 2pm, so that you have enough time to comfortably take and return the exam. Late exams will incur a significant penalty.

**Honor code.** You may study for this exam with other people in the class. **You must complete this exam and any notes for the exam on your own.** You cannot share or distribute this exam or your notes. You cannot discuss the exam with anyone in the class until after the due date. You can never discuss the exam with anyone who is not in CS 42 this semester. You cannot use more resources (e.g., more notes, a computer) than those explicitly described above.

**If you have any questions about the rules, please ask before you start the exam.**

Your name: \_\_\_\_\_

Exam start date & time: \_\_\_\_\_

Exam end date & time: \_\_\_\_\_

Your signature: \_\_\_\_\_

**Be sure to fill out this page and restaple your exam before you turn in.**



Restaple here.