

Midterm Review Sheet

The test is going to be a 50 minute exam with 10 questions on it. The questions will be similar to those on the quizzes or somewhat like what I have on the drill problems. The make-up of the test will be 4 short answer questions, 3 coding questions, and 3 tracing questions. There will be varying levels of difficulty in the questions (the quiz questions have been a bit on the harder end of the spectrum). The test is cumulative over all the material we have covered so anything we have talked about can appear on it. Below I list the topics that stand out to me, and what you probably need to know about them. I can't promise that the test material will follow this perfectly, but I will try to make it do so.

Basic model of computation

How does a computer work in the most simple of terms?

Basic Linux Commands

By this point the basics should be second nature to you.

I'm not going to ask about vi commands.

Data Representation

Binary, Hex, and Octal and conversion between them.

Addition, bitshifting, and multiplication using bitshifting in binary.

2s compliment negative numbers and how to find them.

Basics of fractional values in binary, no floating point, how would you write 3.75 in binary?

C Basics

Know about expressions and statements in C.

Variable declarations and something of their semantics.

Building complex expressions with operators.

Assignment in C.

C Input and Output

Know the syntax and basic usage of printf and scanf.

Conditional statements

Know the syntax of if and switch statements and what they can do and are used for.

Boolean expressions, comparisons, and building complex expressions with logic operators.

Loops

While, for, and do/while loop syntax and usage.

Know the main parts of looping structures in C and the strengths of each type of loop.

Functions

You need to understand the concept of breaking problems up into pieces.

Know what the signatures of functions are and how to write them.

Understand formal vs. actual arguments and the semantics of pass by value.

Pointers will not be on the test.

For all language features, you need to know how to use them both in writing code and be able to trace code that involves them.