

For Monday

- Read Weiss, chapter 2
 - This is tough going, but do the best you can with it.
- C++ Practice 5
 - Described on Blackboard
 - Submit from the Suns
 - Worth 2 homeworks

Assignment and Initialization

- What's the difference?

Assignment

- Default assignment operator
 - does a byte-by-byte copy of the object
 - Why is this an issue?
- Solution:
 - Create your own assignment operator
 - Either copy the pointer or the data as appropriate for your class
 - Must be a member function
 - Always returns `*this`

Initialization

- Copy Constructor

Files in C++

- ifstream
- ofstream
- Names must be c-strings
- Same basic operators

File reading loops

- No look ahead . . .
- Think sentinel

Math

- Series are somewhat important
- Focus will be on understanding the book's analyses, rather than doing the analysis yourself
- Do try to understand – memorizing is not helpful – there's a BIG difference between $\log(n)$ and $n \log(n)$, but only if you understand what you're talking about

Recursion

- What is recursion?
- How does it work?

Weiss's 4 Rules of Recursion

- What are they?

Factorial

- Base case?
- Recursive part?
- Is recursion the best approach?

Fibonacci Numbers

- The problem
- Base case?
- Recursive part?
- Is recursion the best approach?

Recognizing a Palindrome

Algorithm Analysis

- What's the goal?

The Selection Problem

- What is it?