CSCI 1321 (Principles of Algorithm Design II), Spring 2001
Review for Exam 1

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1 Format of the exam

The exam will be in class February 21. You will have 50 minutes. You may use your textbook and any notes or papers you care to bring, but you may not use other books, a calculator or computer, or each other's papers.

The following are some kinds of questions that might be on the exam. It is *not necessarily an exhaustive list* of all types of questions on the exam, but should give you an idea of what to expect.

- Given some C++ code (possibly a complete program, possibly a fragment), answer one or more of the following questions:
  - Will it compile correctly? (You may be told that it does not.) If not, why not, and how would you fix it?
  - What does it print out? What does it (if a function) return? What value does it assign to a specified variable? Are these results correct? If not, what has gone wrong, and how would you fix it?
- Given a problem description, write a C++ program or function to solve it. You may be given some of the code and asked to "fill in the blanks", or you may be given descriptions of C++ functions or classes to use in your solution.

2 Topics to review

You are responsible for all material covered in class or in the assigned reading. (See Homeworks and other assignments[1] for a list of assigned reading.) You should review in particular the following topics. Again, this list is *not necessarily exhaustive*, but should give you an idea of what topics I consider most significant.

- Recursive functions and data structures. An example of a recursive data structure is the natural numbers of Homework 2.
- Use of templatized container classes such as `vector` and `pair`.
- Use of STL functions such as `for_each`.
- Use of STL iterators.
- Use of function arguments.
- Command-line arguments.

[1] `http://www.cs.trinity.edu/~bmassing/CS1321_2001spring/assignments.html`