ECE 1574 Fall 2013

Final Exam Study Guide

How to Solve It

1. What are the four steps of problem solving?
2. How are the four steps of problem solving related to programming?

Programming: Principles and Practice Using C++

Chapter 1

1. What is software?
2. What do most programmers refer to when they say that programming is interesting?
3. How are computers used in our day to day life?
4. What are the ideals for programmers?

Chapter 2

5. Are computers "smart" or "dumb"?
6. What is the one function all C++ programs must have?
7. What are the steps that take C++ source code and create an executable?

Chapter 3

8. What is an object?
9. What is an object's type?
10. What is a variable?
11. What is a variable definition?
12. What is a value?
13. How does "get from", >>, work?
14. What is an assignment?
15. What is an initialization?
16. How is assignment different from initialization?
17. What is a valid name in C++?

Chapter 4

18. What is I/O?
19. What is abstraction?
20. What is "divide and conquer"?
21. How does abstraction and divide and conquer help programmers solve difficult problems?

22. What is an expression?
23. How does C++ compute mathematical expressions?
24. What does C++ do with mixed type expressions, e.g. 7 + 2.5?
25. How does C++ choose between alternatives?
26. How does C++ repeat statements?
27. What is a function in C++?
28. What is the syntax of a function definition?
29. Why do we write functions?
30. What is a function declaration?
31. What is a vector?
32. How do you put data into a vector?
33. How do you access data in a vector?