

Study Guide for Final Exam

Chapter 1

- Know what makes up an algorithm
- Know what makes up the Development Process
- Know what Polya's Four-Step Process is
- Know some of the common high level languages

Chapter 2

- Know the Most Common techniques for representing program designs

Chapter 3

- Know what makes a valid identifier and what doesn't
- Know the common reserve words, i.e. the ones we use in our programs
- Know the order of operator precedence and how to calculate answers for simple math problems using the rules
- Know what the computer does when computing an answer using mixed types

Chapter 4

- Know how the extraction operator works when it encounters whitespace
- Know what you need to have in your program if you want to get floating point numbers to look correct
- Know how to read until input failure
- Know what function you need to use if you want to read the white space in a string

Chapter 5

- Know how to determine the results of a Boolean expression
- Know where the Boolean operators are in the operator hierarchy
- Know the two main selection statements and how they work
- Know what the three types of variables that can be used in a switch statement

Chapter 6

- Know the two main loop types
- Know the different control loops
- Know how to change a while loop to a for loop and vice versa

Chapter 7

- Know the difference between pass-by-value and pass-by-reference
- Know where functions find values for variables that are needed
- Know the difference between global and local scope

Chapter 8

- Know how to declare arrays
- Know how arrays elements are indexed
- Know how to pass arrays to functions
- Know that you can use parallel arrays, but what is a better way
- Know how 2-D arrays are processed

Chapter 9

- Know how to declare an enumerated type
- Know which selection statements enums are best used with

Chapter 10

- Know how to declare a struct
- Know how to access different members of a struct
- Know how to create an array of struct and how to access the members

Chapter 11

- Know the two main ways to search an array

Chapter 12

- Know the two main ways to sort an array

Chapter 13

- Know what the two main pieces of an object are