Data Structures
Ch. 1 Practice Test

In order to prepare for the Ch. 1 Data Structures test I recommend the following.

1. Review the main sorting and searching algorithms reviewed in Ch. 1. Be able to trace the sorting algorithms by tracing an unsorted vector of elements as it is sorted. Be able to identify and explain characteristic and important sections of each algorithm. Be able to fill in missing lines of each algorithm. Identify and explain the best and worst cases of each algorithm.

2. Be able to fill in the entries for all of the algorithms and the 3 columns of the big-O table on pp. 73 & 74.

3. Be familiar with the big-O notation definition on p. 37.

4. Be able to define the Vocabulary Review terms on p. 74. Also be able to use them in fill-in-the-blank questions.

5. Given a code segment, perform a big-O analysis.

6. Explain the usefulness of a graphic representation of O[f(n)] such as Figures 1-4, 1-5, and 1-6 in Ch. 1.

7. Review all assigned homework exercises.

8. Read the online Ch. 1 notes.

9. Skim or review Ch. 1 of the textbook, especially the Summary on p. 73.