Practice Problems—Final

Alex Vondrak

Fall 2011

Below is a list of self-test problem numbers (categorized by page number) from your textbook, *Data Structures & Other Objects Using Java*^{TM}, 3e, by Michael Main. The questions asked (generally) reflect the material we've covered in class—if a particular detail sounds like something we never covered, it's probably because we didn't. But taking a look over these problems is good preparation for the midterm. The solutions are given in the back of the chapter in which they occur.

It may also help to refer to Appendix G in the text for material on the formal definition of Big-O (just to be sure).

p172 1, 2, 3, 4, 5*, 6

p184 7, 8

p207 11, 12, 13, 14†, 15, 16

p208 17, 18, 19, 20, 21, 22, 23

p235 38, 39, 40, 41, 42

p408 1, 2, 3

p409 4

p435 9

p436 10, 13, 14, 15, 16

p569 1, 2, 3, 4

p586 5, 6, 7, 8 ⟵‡

p586 9

p589 11, 12, 13, 14, 15 ⟵‡

p593 16§, 17§

*Note that in the concept of linked lists we developed in class, we didn't keep track of the "tail" (last node) of the list. It's informative to study how this is accomplished in the book.

†The book uses getter methods where we didn't. You can read the code as "`head = head.link`".

‡These questions deal with hash table implementation. It's not a primary focus, but going through these will give you a better understanding of hash tables.

§We only looked at two of the three mentioned hashing methods.