

Review Exercises for CIST 1400

These review exercises use the 8th edition of Deitel & Deitel’s *Java How to Program (Late Objects Edition)* (ISBN: 978–0–13–612371–2). In the past, many of our quiz and exam questions have pulled directly from the questions in the text. In addition, going through these exercises in a conscientious and diligent fashion will help you to become a better programmer.

Exercises listed are ones that are deemed useful. **Bold-Faced Exercises** (as listed here) are particularly useful.

Chapter 1

Chapter 1 discusses some fundamental vocabulary terms and introduces a few key concepts.

Exercises

1.1, **1.2**, 1.3, 1.4, 1.5, **1.6**, 1.7, 1.8

Chapter 2

Chapter 2 discusses input, output, basic memory concepts, arithmetic, boolean logic (including relational operators) and if-statements.

Exercises

2.1 - 2.6, 2.7, 2.8(a-b), **2.9 - 2.17**, **2.18**, 2.19 - 2.23, **2.24 - 2.26**, 2.28, 2.29, **2.30**

Chapter 3

Chapter 3 discusses more advanced if-statement logic, `while` loops, compound assignment, and some of the unary operators, as well as the primitive types.

Exercises

3.1 - 3.9, 3.10, **3.11**, 3.12, **3.13**, 3.14, **3.15 - 3.16**, 3.17, 3.19, 3.20, **3.21**, **3.22**, 3.23, 3.24, **3.27**, **3.28**, 3.29, 3.30, 3.31, 3.33, **3.34**, 3.37.

Chapter 4

Chapter 4 concerns itself with `for` and `do-while` loops, the `switch` statement, `break` and `continue` statements, and logical operators.

Exercises

4.1 - 4.4, 4.5 - 4.8, **4.9**, 4.10, **4.11 - 4.13**, 4.14, 4.15, 4.16, **4.19**, 4.20, **4.21**, 4.23, 4.26, 4.27, 4.28

Chapter 5

Chapter 5 discusses using (already-written) methods (via method calls), writing your own methods, and generating random numbers.

Exercises

5.1, 5.2, 5.3, **5.4 - 5.6**, 5.7, **5.8**, 5.9, 5.10, **5.11 - 5.13**, **5.14**, 5.15 - 5.20, 5.21 - 5.23, 5.26 - 5.34

Chapter 6

Chapter 6 discusses arrays (both single and multi-dimensional), the Arrays class, and the String class. It also discusses ArrayLists (which are quite useful, but not covered in this course) and gives a brief introduction to file processing (ditto).

Exercises

6.1(a-i), **6.2(a-f)**, **6.3 - 6.5**, 6.6 - 6.13, 6.17, 6.18, *6.22–6.23*, *6.26* and *6.24–6.25 (these are difficult, though also classic computer science problems)*, 6.28.

Chapter 7

Chapter 7 discusses objects and classes, as well as local v. field variables, static v. non-static methods, object instantiation and constructors, and collections of objects.

Exercises

7.1 - 7.3, 7.4 - 7.9, 7.10 - 7.14, 7.18