Introduction to Comp. Sci., Homework 2

Due at 12pm on Friday Feb. 15

Readings from Liang

Read the first two chapters of Liang ("Introduction to Computers, Programs, and Java" and "Elementary Programming") and the beginning of the third ("Selections") up until the section on `if` statements (§3.3 in the 9th edition). Skip over the sections that talk about dialog boxes (§1.9 and §2.19 in the 9th edition). Read the section on `while` loops (§4.2 in the 9th edition). Liang includes many details. It's good to see them once, but don't worry about remembering everything.

Optional readings and exercises from HFJ

Read chapter 1 of *Head First Java*. While doing so, do the "sharpen your pencil" on p. 5 and p. 13 and the exercises on p. 20 and p. 21. Check your solutions against the ones in the book.

To be turned in

1. Create a Java program, `hw2.UpperOrLower`. It should be a class named `UpperOrLower` in the package `hw2` in `hw2/UpperOrLower.java` in Subversion. It should ask a user to type a number and print "Uppercase or lowercase: true" if the Unicode character with that number is either uppercase or lowercase and "Uppercase or lowercase: false" otherwise. Use `Character.isUpperCase` and `Character.isLowerCase`. Running the program should look like this:

   ```
   $ java hw2.UpperOrLower
   Enter a number: 88
   Uppercase or lowercase: true
   ```

   Note that a character may be uppercase ("A"), lowercase ("a"), or neither ("א"). Your program should output "true" if it is either.

2. Create a Java program, `hw2.FirstOddCubes` (in `hw2/FirstOddCubes.java`). It should print the first ten odd cubes. (The first three are 1, 27, and 125.) It should use an `if` statement inside a `while` loop. Running the program should look like this:

   ```
   $ java hw2.FirstOddCubes
   1
   27
   125
   ...
   ```

I wrote a smoke test for your programs; you can run it with (Mac):

```
$ testing/test.sh Hw2Test
```

or (Windows):

```
> testing\test.ps1 Hw2Test
```