Study Questions
CSC/MAT 208, “Discrete Structures”
Department of Computer Science
Grinnell College
January 25, 2019

For January 23, 2019

1. Give an example of a proof technique in mathematics that is in some way analogous to a programming technique or design pattern. Explain the analogy.

2. What is the front-door page of the Web site for this course?

3. Do the lab “Setting up DrRacket for R7RS Programming.” Write a short summary confirming that you completed each step and reporting any difficulties you encountered along the way.

For January 25, 2019

4. Do today’s lab, “Libraries in R7RS Scheme.” Write a short summary confirming that you completed each step and reporting any difficulties you encountered along the way, and provide copies of the finished versions of `summation.ss` and of the top-level programs that you created.

For January 28, 2019

5. Why is “mathematical rigor” relevant to computer science?

   How is the mathematical notion of a predicate (“a proposition whose truth depends on the value of one or more variables”) related to the notion of a predicate in Scheme (“a procedure that always returns a Boolean value”)?

6. Solve problem 1.2 (page 21) from the textbook.

7. Solve problem 1.4 (pages 22 and 23) from the textbook.