Part I: Read and Respond (prepare for class Friday, January 31)

Carefully read Section 1.5, stopping when you get to the proof of (ii) of Theorem 1.5.6 (partway down page 28), taking notes for yourself and answering the following question(s). Review the syllabus for parts (a)–(c) that should be included in this assignment. Here are the reading questions for part (a):

Reading Question(s)

- 1. What parts of this were new to you?
- 2. In the proof of part (i) of Theorem 1.5.6,
 - (a) What would be in the set A_6 ?
 - (b) How do we know that every rational number appears in exactly one of the sets A_n ?

Part II: Exercises (prepare for class for Friday, January 31)

- 1. Exercise 1.5.5
- 2. Exercise 1.5.9ab

Part III: Problems (due Wednesday, February 5 at the beginning of class)

- 1. (P) Exercise 1.4.4
- 2. (I) Exercise 1.4.7 (We started this in class Wednesday; I decided to let you finish it/write it up as a Part III problem.)