

CS 3653: Discrete Mathematics Fall 2009

Homework 4 (Version 1): Sets

Due Date: October 1 (Thursday), 2009

Notes:

- Read Course Information: Section 7 (Miscellaneous) and Section 9 (Academic Dishonesty or Misconduct).
- When you are giving a construction, example, etc., provide a justification with your argument. Your solutions to numerical problems must contain the derivation of your answers. In all of your presentations, strive for correctness, completeness, and clarity. When in doubt about the assumptions of problems, the interpretations of wording, etc., consult the instructor.
- You should strive to complete all problems assigned, and a subset of them will be graded.

1. Read the notes above carefully.
- 2.
3. Do [Ros07] Section 2.1: exercises 8, 16, 18, 22, and 38.
4. Do [Ros07] Section 2.2: exercises 4, 16 d) and e), 18 c), d), and e), 24, and 30.
5. Do [Ros07] Section 2.2: exercises 40.
6. Do [Ros07] Section 2.2: exercises 46 and 48 (Read [Ros07] page 128 for the definitions of intersection and union of infinitely many sets.)
7. Do [Ros07] Page 164, Supplementary Exercises: exercises 2, 4, 6, and 8.
8. Note: More problems may be given in next version.