## Practice questions from the book for the final exam

This refers to the 7th edition of Rosen's Discrete Mathematics.

- Logic and Proofs:
  - 1.1: 1-41
  - -1.2:1-37
  - 1.3: 1-33, 40, 41, 56-62
  - 1.4: 1-45, 59-62
  - -1.5:1-47
  - -1.6:1-19
  - -1.7:1-42
  - -1.8: 1-24, 27-36, 38
  - Chapter 1 supplementary exercises: 1–18, 20–46
- Sets, Functions, Sequences, Summations:
  - -2.1:1-44
  - -2.2:1-30,47-51
  - -2.3:1-33,36,38-45,69,70
  - -2.4:1-8,25,26,29-37
  - -2.5: 1-4, 10-14, 17-23
  - Chapter 2 supplementary exercises: 1–15, 18
- Induction and Recursion:
  - -5.1:3-24,28,31-34,38-43
  - -5.2:3-7,12
  - 5.3: 7-13, 23-27
  - Chapter 5 supplementary exercises: 1–16, 22,23
- Number Theory:
  - -4.1:1-36
  - -4.3:1-5,14-18,21-35
  - -4.4:1-6,9-12
  - -4.6:5,24-27
  - Chapter 4 supplementary exercises: 3, 25–27

## • Combinatorics:

- -6.1:1-19,25-49,52-69
- -6.3:1-28,30
- $-\ 6.4 \colon\ 1\text{--}9,\ 12\text{--}15,\ 21\text{--}25,\ 28$
- $-\ 6.5{:}\ 1\hbox{--}13,\ 21\hbox{--}38,\ 41\hbox{--}43,\ 50\hbox{--}60$
- Chapter 6 supplementary exercises: 1–15, 18–24, 35–46

## • Probability:

- 7.1: 1–18, 20–38
- 7.2: 1–12, 18–21, 23–35
- 7.4: 1–8, 24
- Chapter 7 supplementary exercises: 1–14

## • Graphs (extra credit):

- -10.1:1-10
- -10.2:4-18
- -10.3: 1-8, 10-22
- 1.7: 1–9, 12–14