

CSCE 222 [Sections 502, 503] Discrete Structures for Computing
Spring 2017 – Hyunyoung Lee

Problem Set 6

Due dates: Electronic submission of *yourLastName-yourFirstName-hw6.tex* and *yourLastName-yourFirstName-hw6.pdf* files of this homework is due on **Monday, 3/20/2017 before 11:00 a.m.** on <http://ecampus.tamu.edu>. You will see two separate links to turn in the .tex file and the .pdf file separately. Please do not archive or compress the files. A signed paper copy of the pdf file is due on **Monday, 3/20/2017 at the beginning of class**. **If any of the three submissions are missing, your work will not be graded.**

Name: Joseph Martinsen

Section: 503

Resources. (All people, books, articles, web pages, etc. that have been consulted when producing your answers to this homework.)

On my honor, as an Aggie, I have neither given nor received any unauthorized aid on any portion of the academic work included in this assignment. Furthermore, I have disclosed all resources (people, books, web sites, etc.) that have been used to prepare this homework.

Signature: _____

Problem 1. (5 points) Section 5.1, Exercise 50, page 331

Solution.

Problem 2. (15 points) Section 5.2, Exercise 4, pages 341–342

Solution.

Problem 3. (10 points) Section 5.2, Exercise 12, page 342

Solution.

Problem 4. (10 points) Section 5.2, Exercise 30, page 344

Solution.

Problem 5. (30 points) Section 5.3, Exercise 6, page 357. To prove that your formula is valid, use mathematical induction. For the invalid recursive definitions, explain why they are invalid.

Solution.

Problem 6. (15 points) Section 5.3, Exercise 16, page 358 (use mathematical induction)

Solution.

Problem 7. (15 points) Section 5.3, Exercise 44, page 359

Solution.

Problem 8. (Extra credit 10 points) Section 5.3, Exercise 36, page 359

Solution.

Checklist:

- ☐ Did you type in your name and section?
- ☐ Did you disclose all resources that you have used?
(This includes all people, books, websites, etc. that you have consulted.)
- ☐ Did you sign that you followed the Aggie Honor Code?
- ☐ Did you solve all problems?
- ☐ Did you submit the .tex and .pdf files of your homework to the correct link on eCampus?
- ☐ Did you submit a signed hardcopy of the pdf file in class?