

# CSCI 1323 (Discrete Structures), Spring 2012

## Homework 4

**Credit:** 40 points.

### 1 Problems

Do the following problems. You do not need to turn in answers for the ones marked “Not to turn in”. Most such problems will be those for which the textbook provides an answer in the back of the book, so you can check your work.

1. (Not to turn in.) Do problem 7 on p. 140 of the textbook.
2. (Not to turn in.) Do problem 36 on p. 143 of the textbook.
3. (5 points) Do problem 37 on p. 143 of the textbook.
4. (Not to turn in.) Do problem 42 on p. 144 of the textbook.
5. (5 points) Do problem 43 on p. 144 of the textbook. For every string of symbols that belongs to  $W$ , show how it can be generated by using the recursive definition of  $W$ . (See Example 33 and Practice 14 on p. 132 for examples of how to show that a string fits a recursive definition.)
6. (Not to turn in.) Do problem 48 on p. 144 of the textbook.
7. (5 points) Do problem 49 on p. 144 of the textbook.
8. (Not to turn in.) Do problem 66 on p. 146 of the textbook.
9. (5 points) Do problem 67 on p. 146 of the textbook.
10. (Not to turn in.) Do problem 1 on p. 164 of the textbook.
11. (5 points) Do problem 5 on p. 165 of the textbook.
12. (Not to turn in.) Do problem 7 on p. 165 of the textbook.
13. (Not to turn in.) Do problem 10 on p. 165 of the textbook.
14. (5 points) Do problem 11 on p. 165 of the textbook.
15. (Not to turn in.) Do problem 23 on p. 167 of the textbook.
16. (5 points) Do problem 24 on p. 167 of the textbook.
17. (Not to turn in.) Do problem 39 on p. 168 of the textbook.
18. (5 points) Do problem 40 on p. 169 of the textbook.