CSCE 222: Discrete Structures for Computing
Section 503
Fall 2016

YOUR NAME HERE

September 4, 2016

Problem Set 2

Due: 11 September 2016 (Sunday) before 11:59 p.m. on eCampus (`ecampus.tamu.edu`).

Problem 1. (20 points)
For each of the following functions, determine whether that function is of the same order as n^2 either by finding witnesses or showing that sufficient witnesses do not exist:

1. $13n + 12$
2. $n^2 + 1000n \log n$
3. 3^n
4. $3n^2 + n - 5$
5. $\dfrac{n^3 + 2n^2 - n + 3}{4n}$

Problem 2. (20 points)
Do Supplementary Exercise 29 of Chapter 3 (page 234).

Problem 3. (20 points)
Do Exercise 31 of Chapter 1.1 (page 15).

Problem 4. (20 points)
Do Exercises 19, 21, and 23 of Chapter 1.2 (page 23).

Problem 5. (20 points)
Do Exercises 50 and 51 of Chapter 1.3 (page 36).

Aggie Honor Statement: 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.

Checklist:
1. Did you abide by the Aggie Honor Code?
2. Did you solve all problems and start a new page for each?
3. Did you submit the PDF to eCampus?