Problem Set 1

CSCE 411 and CSCE 411H (Dr. Klappenecker)

Due dates: Electronic submission of .tex and .pdf files of this homework is due on **1/27/2017 before 10:00am** on e-campus (as a turnitin assignment), a signed paper copy of the pdf file is due on **1/27/2017** at the beginning of class.

Name: (put your name here)

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: _____

Get familiar with LaTeX. All exercises are from the lecture notes (not from our textbook).

Problem 1. Sign up for your section on perusall.com (watch for e-mail with sign up instruction). Read Chapter 10 on perusall.com. Make at least 5 insightful comments (these are automatically graded. Spread them out over the chapter and do not make them too short, the system penalizes for that). Endorse other comments if they are helpful.

Asymptotic Equality $\sim$

Problem 2. Exercise 10.1

Solution.

Problem 3. Exercise 10.2

Solution.

Problem 4. Exercise 10.3

Solution.

Asymptotically Tight Bound Θ

Problem 5. Exercise 10.9

Solution.

Problem 6. Exercise 10.10 (comparing sums with integrals can be handy, cf. Appendix A of [CLRS])

Solution.

Problem 7. Exercise 10.12

Solution.

Asymptotic Upper BoundO

Problem 8. Exercise 10.17

Solution.

Problem 9. Exercise 10.27

Solution.

Problem 10. Exercise 10.28

Solution.

Homeworks must be typeset in LaTeX.

Checklist:

- ☐ Did you add your name?
- ☐ 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 pdf file resulting from your latex file of your homework?
- ☐ Did you submit (c) a hardcopy of the pdf file in class?