Problem Set 5

CSCE 658 Randomized Algorithms

Due dates: Electronic submission of the .pdf file of this homework is due on **3/1/2018 before 11:00am** on e-campus (as a turnitin assignment), a signed paper copy of the pdf file is due on **3/1/2018** 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: _____

Read Chapter 4 in our textbook.

Problem 1. Solve Exercise 4.2 in our textbook.

Solution.

Problem 2. Show that $\mathbf{NP} \subseteq \mathbf{BPP}$ implies $\mathbf{NP} = \mathbf{RP}$.

Solution.

Problem 3. Gain mastery (better reach 98 or more) in "Binomial Probability" on alcumus.

Problem 4. Gain mastery (better reach 98 or more) in "Multiplying Probabilities" on alcumus.

Problem 5. Gain mastery (better reach 98 or more) in "Advanced Probability with Combinations" on alcumus.

Problem 6. Gain mastery (better reach 98 or more) in "Probability – Think About It!" on alcumus.

Problem 7. Gain mastery (better reach 98 or more) in "Using Geometry in Probability" on alcumus.

Feel free to work on the counting problems as well. You compete against your classmates. I will regularly post the top 3.

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 a hardcopy of the pdf file in class?