Spring 2019: CSE 5301 – 001, 002
Homework 2

Directions

- The assignment has to be submitted on blackboard (http://elearn.uta.edu)
- If its typed, make sure the extension is (.pdf)
- If its handwritten, make sure to scan at high enough dpi that the text is legible and readable
  - Save as .pdf or .png
- If your submission is a single file name it as <net-id>_hw2.<extension>
- If your submission is made of multiple files, zip them together into a single archive
  - Only .zip archives accepted
  - Name the file <net-id>_hw2.zip
  - Contact the instructor or TA if you have any issues creating archives
- **ALL WORK HAS TO BE INDIVIDUAL WORK.**

Questions

Exercises 4.24, 4.28, 8.9, 9.4 [Do both Method of Moments and Method of Maximum Likelihood]

Q5.

The following are samples obtained from a population that follows a normal distribution

69, 47, 175, 70, 53, 64, 74, 52, 58, 45, 67, 44, 58, 64, 49, 70, 65, 70, 48, 16, 67, 55, 42, 72, 61, 65, 77, 70, 60, 39

i. Find the Sample mean, variance and standard deviation
ii. Use them to estimate the parameters of the normal distribution (μ and σ)
iii. Find and eliminate any possible outliers.
    a. Recalculate the sample mean, variance and standard deviation.
    b. Use the new values to recalculate the parameters of normal distribution.
    c. If the population followed Normal (60, 10), did eliminating outliers improve the accuracy of your estimate?