Statistics 3657a Assignment 2

Handout date: 17 September, 2014

Due date: To be announced in class. The due date will be
approximately 2 weeks from the handout date.

Problems from the text

- Section 1.8 : 45 (you will need to use mathematical induction; review this if you
  need to do so), 71, 74, 77

- Section 2.5 : 44, 57 and 62

  65. Use the method of Chapter 2.3, that is one of Propositions 2.3 C or D (you
  will need to decide which one is useful for this problem). In particular you will
  need to find the cdf (α is the parameter).

  65 additional part : You will simulate random data from this distribution. Write
  the code in R. See me if you wish to use some other programming language,
  or if you have never done any coding. You will need to submit the code. For
  three particular values of α, use you code to generate a sample of size $n = 100$.
  Give the histogram, and sample mean and variance for your output. Do this for
  $\alpha = -\frac{1}{3}, \frac{1}{3}, \frac{2}{3}$.

- Section 3.8 : 8, 14, 17, 20