Homework for Chapter 5

5.5 – Note that s = 7.1

5.6

For both parts a and b, verify your answers by calculating the relevant confidence intervals

5.9

a) Construct the interval based on the t-distribution. The sociologist later suggested that additional counseling should be given to the ex-prisoners after some period of time, say 2 years, to help prevent second offenses from happening. Do you think this is a reasonable suggestion given the interval?

5.10

5.36 – Use the actual sample values rather than rely on the sample mean and standard deviation given.

b) Also calculate the 95% confidence interval on the average reading comprehension for all incoming freshman.

c) Ignore the normal probability plot. Use a histogram, box plot, and dot plot instead.

Can the teacher claim that the mean reading comprehension of almost all incoming freshman is at least 60?

5.39 – Use the actual sample values rather than rely on the sample mean and standard deviation given.

b) Replace the problem with: Is there evidence that the manufacturer’s claim is wrong? Use the confidence interval to develop an answer.