Lab 3 (5 Lab points)

Use our class data to do the following problems. You’ll need to do this lab on separate paper. Be neat and complete.

Due at or before Exam 3.

1. (Ch. 7) Consider the number of hours spent working each week by students at Cabrillo. Consider our class data to be an appropriately random sample.

   a) Based on our sample, what is a point estimate for the mean number of hours worked each week by students at Cabrillo?

   b) Construct a 99% confidence interval for the mean number of hours worked each week by students at Cabrillo. What distribution is appropriate here (and why)?

   Hint: You’ll need to enter the data into the calculator and use 1-VarStats to find $x$ and $s$.

2. (Ch. 8) According to the Cabrillo Fact Book the mean age of students at Cabrillo College was 30.2 years in Spring 2009. Using our class data as a random sample, test the claim that the mean age of students at Cabrillo is 30.2 years. Use a significance level of 0.05. [Be sure to show the 5 steps clearly.]

3. (Ch. 8) According to the Cabrillo Fact Book 44.8% of students at Cabrillo College were men in Spring 2009. Using our class data as a random sample, test the claim that less than 44.6% of students at Cabrillo are men. Use a significance level of 0.05. [Be sure to show the 5 steps clearly.]

The Cabrillo Fact Book is available online at http://pro.cabrillo.edu/pro/factbook/