

Homework 11–21-124, Calculus II for Biologists and Chemists

Name: _____
Section: _____

Instructions: Complete the following problems, clearly labeling the problems. Staple this sheet, with your name and section filled in, to the top of your work. Failure to attach this sheet will result in a one point deduction in the grade. The assignment will be graded out of twenty points.

DUE: Friday, April 29, 2016

Book Problems

- Section 12.6: 2, 6, 8, 10, 14, 16, 22, 24, 32
- Section 12.7: 4, 6, 16, 26, 32

Other Problems

1. You wish to test to see if the population mean of the length of a certain species of fish is greater than 75 centimeters. You take a simple random sample of 100 fish and find a sample mean of 76 centimeters and a sample standard deviation of 5 centimeters. Conduct a t-test to find the p-value for this sample. Is it enough to reject the null hypothesis at the $\alpha = 0.05$ level? At the $\alpha = 0.01$ level?
2. Calculate the 95% and 99% t-confidence intervals for the test above.