

# Homework 1–21-124, 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, January 22, 2016**

## Book Problems

- Chapter 4 Review: 2, 6, 8, 12
- Section 5.8: 10, 22, 24, 36, 76
- Chapter 7.1: 8, 12, 22, 24, 28, 36
- Chapter 7.2: 14, 20, 22, 30, 62, 70
- Chapter 7.3: 4, 8, 12, 20, 26, 42

## Other Problems

1. Evaluate

$$\int \frac{1}{\sqrt{x} - \sqrt[3]{x}} dx.$$

**Hint:** Use the substitution  $u = \sqrt[6]{x}$ .