

# Written Assignment 3

*Due by the beginning of class on Monday, September 11, 2017.*

## 1 Integration by Parts

Chapter 7.1: 10, 15, 22, 23, 37, 40, 53, 54, 56

## 2 A Volume Problem

What is the volume of the solid generated if the region bounded by the curve  $y = e^x$ ,  $y = 0$ ,  $x = 0$ , and  $x = 1$  is rotated around the vertical line  $x = -1$ ?

## 3 Additional Problems for Practice

Integration technique simply requires practice, so do as many of the odd-numbered problems from the text as you need to feel really competent and confident. (Feel free to do even-numbered problems as well, of course. The odd-numbered problems give you a way to check that at least you got the correct final answer, but be careful on indefinite integrals: often functions that differ by a constant can have very different forms, so you may be correct even if your answer doesn't match the one in the back of the textbook.)

*Feel free to ask in class about any problem!*