

Duke Math 431  
Spring 2015

## Homework 8

Due Friday, March 20

**Reading.** Sections 4.5, 5.1.

**Problems.**

Section 4.2: #3, 5, 6, 10, 12

*Remark: Note #12 is the formula for integration by parts.*

Section 4.3: #1, 3(a,b), 4, 9, 12, 13

*Remark: For #1 you may use a computer or graphing calculator.*

**Reflection.** *Please put on a separate piece of paper.*

Write ten or more sentences on any topic or two related to the class. Here are some possible topics:

- Describe a result that you've found particularly surprising or counterintuitive. Why did you find it counterintuitive at first?
- Explain a proof that you've found particularly creative. Why is it creative?
- What's a topic that you're struggling to understand? What do you think are possible sources of your confusion?
- Discuss overall trends of the course by tying different concepts together.
- Present a proof or a problem not assigned for homework. Why do you find this problem interesting?
- How are your study habits for the class? Do you have goals for improving them?

Don't write on all of these topics — pick one or two of them, or alternatively any other topic of your choosing related to our class.