

# Sections 7.1 and 7.2: Basic Approaches and Integration by Parts

## MATH 131: Calculus II, Section 2

Name (Print): \_\_\_\_\_

Due: Friday, October 12, 2018 at the beginning of class

After reading Sections 7.1 and 7.2 (pages 511-520 in the text), respond to the following questions **on this handout**. Be sure to staple your pages together before turning it in if they are not double sided. **You must answer all parts to all questions to earn full credit!!! Also, use FULL SENTENCES to answer questions that require words.** See the salmon homework guidelines handout for details. You are encouraged to take additional notes wherever you are keeping your class notes.

### Response Section

1. Section 7.1 reviews techniques that we already know how to use to integrate functions. Some of these we have used more often than others, and some you may have only seen once before. Make a list of the approaches we could use before learning the new techniques in latter sections of chapter 7 (Hint: each example gives you another idea!).

2. State the definition of Integration by Parts.

3. (a) What differentiation rule does integration by parts work to undo? Remember to use full sentence(s).

(b) For what types of integrands is integration by parts useful? (Look at all of the examples in the section!) Remember to use full sentence(s).

4. (a) Evaluate  $\int x^8 dx$ .

(b) Evaluate  $\int x^3 dx \cdot \int x^5 dx$ .

(c) Compare your answers from (a) and (b). What does this illustrate?

### Questions/Overview Section

5. Write down any **questions** you have on the reading. Be as specific as possible! See the salmon homework guidelines handout for details.

### Reflection Section

6. Write **two or three** sentences reflecting on the process of your work so far in the course. See the salmon homework guidelines handout for details.

### Time Section

7. How much time did you spend on this reading assignment? \_\_\_\_\_