Sections 8.1 and 8.2: Basic Approaches and Integration by Parts

MATH 131: Calculus II Your Name (Print): _____

Due: Friday, March 6, 2020 at 1:30pm

After reading Sections 8.1 and 8.2 (pages 520-529 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 8.1 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 8 (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/Exercise Section

5. Write down at least two questions you have on the reading. OR if you have NO questions, do exercise 62 in Section 8.1 (page 524). Be sure to show your work for full credit! See the salmon homework guidelines handout for details.

Reflection Section

6. Write **two or three** sentences reflecting on the progress 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? _____