Section 6.6: Surface Area

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

Due: Friday, February 28, 2020 at 1:30pm

After reading Section 6.6 (pages 457-462 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. What is a frustum? Answer in a sentence then draw Figure 6.62 and give the formula for the surface area of a frustum.

2. How is a frustum helpful in finding the surface area of a surface of revolution? That is, why do we want to use frustums to derive our formula for surface area? (Hint: look at figures 6.63 and 6.64.)

3. State the definition of the area of a surface generated by rotating $y = f(x)$ about the x-axis.

4. Describe in words what the formula for surface area is. That is, in words, what is in the integrand of the integral? (You did this in question one of your reading assignment for Section 6.4 as well.)

Questions/Exercise Section

5. Write down at least two questions you have on the reading. OR if you have NO questions, do exercise 10 in Section 6.6 (page 463). 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? _____