

Section 6.4: Volume by Shells

MATH 131: Calculus II

Your Name (Print): _____

Due: Monday, February 24, 2020 at 1:30pm

After reading Section 6.4 (pages 439-447 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. On page 441 there is a comment in the margin about the meaning of the factors in the formula for volume using shells. What are the meanings?

2. Draw Figure 6.43 to show what it looks like when an estimating rectangle is rotated about the y -axis.

3. State the definition of the Volume by the Shell Method.

4. When setting up your solution for a volume problem, you should draw the region and draw an estimating rectangle. What is the difference for how you should position your rectangle in your region if you are to apply the Disk Method compared with if you are to apply the Shell Method? Or do you position them the same way? Explain briefly. Include in your explanation what your rectangle height represents in each of the different formulas.

Questions/Exercise Section

5. Write down at least two questions you have on the reading. OR if you have NO questions, do exercise 12 in Section 6.4 (page 448). 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? _____