

# Reading Assignment for Section 6.4

MATH 131: Calculus II, Sections 2 and 3  
Fall Semester 2015

**Follow the general guidelines for the Reading Assignment (the salmon colored handout).** Be sure to include and label all four standard parts 1,2,3,4 of the Reading Assignment in what you hand in. Be sure to **staple** together pages if you have more than one, and include your **name** at the top of at least the first page. Neatness is expected!!!

**Due:** by the beginning of class on Friday, October 2nd

Read:

Section 6.4, pages 434-441: Volume by Shells! Do the Quick Checks along the way! Check your answers to them at the end of the Exercises for Section 6.4!

Notes:

In this section we will look at finding the volumes of objects not by using disks but by using cylinders. Sometimes, especially if our solid has a hole, using the Shell Method will be easier than using the Disk Method. Again, we still approach deriving a formula for the Shell Method with the same initial steps! You should almost be able to say them in your sleep!

**Remember that your answers should include complete sentences for every question. Be sure to address all parts of each question.**

Reading Questions for part (1):

- a) Explain in **your own words** how the Shell Method works. Draw labeled pictures illustrating the process as part of your explanation.
- b) When setting up your solution for a volume problem, you should draw the region and place an estimating rectangle within the region. 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.

**NEW** for part (3): In the Reflection section of this homework, reflect on how you think the reading assignments are going for you. Do you feel like your ability to read or comfort level in reading the text has changed during the first five weeks of the semester? Do you have questions on how to approach the reading assignments? Do you see these as opening doors to begin the discussion of new topics? You may also reflect on other aspects of the course here as usual, but I particularly am interested in your thoughts on the reading assignments.

Remember parts 2-4 on the salmon handout! **Reread the directions for these parts to be sure that you are answering the questions.** If you have lost your salmon handout, there is a link on our website to the Homework Guidelines.