

# Reading Assignment for Section 6.4

MATH 131: Calculus II, Section 1  
Spring Semester 2014

**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 appreciated!!!

**Due:** by the beginning of class on Monday, February 24th

Read:

Section 6.4, pages 403-410: 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 is different from the Disk Method. Draw labeled pictures of the two methods 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 were to use the Disk Method compared with if you were to do the Shell Method? Or do you position them the same way? Explain briefly.

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.