

Announcement

I keep forgetting to say this in class: Calculus@Night (described in the syllabus) is on Tuesdays from 7:30–8:30 PM in Library 140 (the classroom in the math space). It's a great place to work with others with a TA there to help as needed!

Part I (due at the beginning of class Wednesday, January 24)

Watch these videos on solids of revolution:

- [A silent animation](#) showing how shells are generated in a solid of revolution
- [A video using physical objects](#) to show solids, slicing, and shells (warning: this one involves food, so you may want snacks)
- [A comparison of the two methods](#)

Remember that what you turn in for Part I should have 3 parts, as mentioned in the syllabus:

- (a) Your responses to the reading/watching questions below.
- (b) Your own questions/comments on the reading.
- (c) The amount of time you spent on Part I (including the time spent reading/watching).

Reading/Watching Question(s)

1. What did the videos help clarify?
2. What questions do you still have about creating solids of revolution and using the slicing method or the shell method to find their volumes?

Part II: Exercises (prepare for class Wednesday, January 24)

Examples 1 and 2 on the blue Volumes (shells) handout.

Part III: Homework Problems (due Wednesday, January 24 at the beginning of class)

Review the guidelines and Sample Homework in the syllabus to make sure your Part III solutions follow them.

1. For each of the following descriptions, create an example other than ones we've seen in class or readings/videos. Explain your example in each case.
 - (a) a region that, when revolved around the x -axis, has both disk and washer cross sections.
 - (b) a region that, when revolved around the y -axis, has both disk and washer cross sections.
 - (c) a solid of revolution for which the slicing method will not work to find the volume.