Part I (due at the beginning of class Monday, January 22)

One of the most difficult parts of volumes of solids is visualizing what's going on, as you've likely experienced already! To help with this, watch this video on solids of revolution:

Solids of Revolution

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 video help clarify?

2. What questions do you still have about creating solids of revolution and using the slicing method (often called the disk method when applied to solids of revolution) to find their volumes?

Part II: Exercises (prepare for class Monday, January 22)

Examples 4, 5, 6 on the Volumes of Solids handout.

Part III: Homework Problems (due Wednesday, January 26 at the beginning of class)

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

1. Suppose you make a solid by revolving the region bounded by $y = \sqrt{x}$, $y = 0$, and $x = 4$ about the x-axis. Find the value of x in the interval $[0, 4]$ that divides the solid into two parts that have equal volume.