

8.1 (Slice and Conquer) Turn up the Volume

1. Sketch a graph of the object you want to find the volume of
2. Sketch a picture of a Riemann slice on your graph
3. What shape is it? Circle: box (length·width·height) or cylinder/disk ($\pi \cdot \text{radius}^2 \cdot \text{height}$)
4. Infinitesimal part of the slice? Circle: Δx or Δy
5. Sketch a diagram and show work to solve for any lengths you need
6. Circle any we used: Pythagorean theorem or similar triangles
7. What is the Riemann sum approximation? \sum
8. What is a and b ?
9. Write the integral?

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