

# Class 16: Volumes of Revolution

## Calculus II

College of the Atlantic. Feb 10, 2025

1. The area between the functions  $y = \sqrt{x}$  and  $y = x$  is rotated about the x-axis. What is the volume of the resulting shape?
2. The area between the functions  $y = \sqrt{x}$  and  $y = x$  is rotated about the y-axis. What is the volume of the resulting shape?
3. Find the volume of the solid obtained by rotating the region bounded by  $y = x^2$  and  $x = 2$  around the x-axis.
4. Find the volume of the solid obtained by rotating the region bounded by  $y = x^2$  and  $x = 2$  around the y-axis.