

Ex: Find the volume of the solid generated by rotating the region bounded by $y = \sqrt{x}$ and $y = 1$, about $y = 1$.

What if the solid of revolution has a hole:

Ex: Find the volume of the solid generated by rotating the region bounded by $y = \sqrt{x}$ and $y = x^2$, about the x -axis.

Ex: Find the volume of the solid generated by rotating the region bounded by $y = \sqrt{x}$ and $y = x^2$, about the $y = 2$

Ex: A manufacturer drills a hold of radius 3 inches through a sphere of radius 5 inches, Find the volume of the resulting metal ring.