

VOLUME (BY DISCS/SLICING)

LESSON 5.2

EXAMPLE

Consider the region R bounded by $y = \sqrt{x}$, $y = 0$, and $x = 4$. **Sketch this region carefully (you will need it for the rest of the problem).** Then **set up** integrals that calculate the volume of the solid generated by revolving R about the axes indicated below:

(a) x – axis

(b) y – axis

(c) the line $x = 4$

(d) the line $x = 6$

Challenge: Attempt to sketch a few of the 3D solids above.