

For each three dimensional object described below,

- a. Sketch the solid described
  - b. Set up an integral that gives you the volume of the object
  - c. Evaluate the integral to find the volume
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1. The region bounded by  $y = 4 - 2x$  in the first quadrant is rotated about the  $x$ -axis
  2. The region from #1 is rotated about the  $y$ -axis
  3. The region bounded by  $y = \sqrt{x}$ ,  $y = 2$ , and  $x = 0$  is rotated about the  $y$ -axis
  4. The region from #1 is rotated about the line  $y = -3$
  5. The region from #3 is rotated about the line  $x = 4$