



3. A region is bounded by  $y = \sqrt{x}$ ,  $y = x - 2$ , and  $y = 0$ . What is the volume of the solid generated when this region is rotated around the x-axis?
4. A region is bounded by  $f(y) = 4 + y$ , and  $[0, 4]$  Find the volume of the solid if it is rotated about:
- The x-axis
  - The y-axis
5. A region bounded by  $y = \cos x - 2$ ,  $y = -3$ , and  $[-\pi, \pi]$ . Find the volume of the solid if it is rotated about the x-axis.