**Example**: Determine the volume of the solid obtained by rotating the region bounded by 

\[ y = x^2 - 4x + 5, \quad x = 1, \quad x = 4, \] 

and the x-axis about the x-axis.
Example: Determine the volume of the solid obtained by rotating the portion of the region bounded by
\[ y = \sqrt{x} \quad \text{and} \quad y = \frac{x}{4} \]
that lies in the first quadrant about the y-axis.
Example: Determine the volume of the solid obtained by rotating the region bounded by \( y = x^2 - 2x \) and \( y = x \) about the line \( y = 4 \).
Example: Determine the volume of the solid obtained by rotating the region bounded by \( y = 2\sqrt{x-1} \) and \( y = x-1 \) about the line \( x = -1 \).