Notes

Examples

Example 1. Find the volume of the solid that results by revolving the region enclosed by the curves

$$y = 5x, \qquad x = 1, \qquad x = 4, \qquad y = 0$$

about the x-axis.

Example 2. Find the volume of the solid that results by revolving the region in the first quadrant enclosed by the curves

$$y = 7x^2, \qquad x = 0, \qquad y = 252$$

about the y-axis.

Example 3. Find the volume of the solid that results by revolving the region enclosed by the curves

$$y = \sqrt{49 - x^2}, \qquad y = 0, \qquad x = 0$$

about the y-axis.

Example 4. Find the volume of the solid that results by revolving the region enclosed by the curves

$$y = \sec x, \qquad y = 0, \qquad x = 0, \qquad x = \frac{\pi}{11}$$

about the x-axis.