

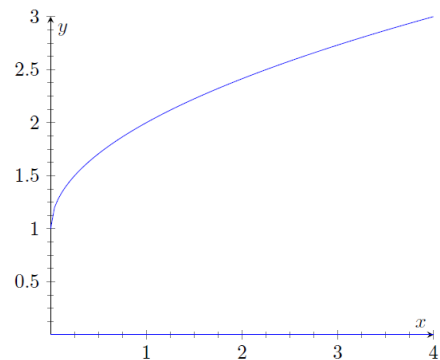
Volume Using the Disk Method

Learning Objectives

- Use the disk method to find the volume of a solid of revolution around the x-axis with polynomials or roots
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Use the disk method to find the volume of a solid of revolution around the x-axis with polynomials or roots

1. Find the volume of revolution bounded by $f(x) = \sqrt{x} + 1$, $y = 0$ and $x = 4$, around the x-axis. Round your answer to 2 decimal places.



- Disk Method: $V = \pi \int_a^b [R(x)]^2 dx$

ANSWER KEY

1. $V = \frac{68\pi}{3} \approx 71.21 \text{ units}^3$