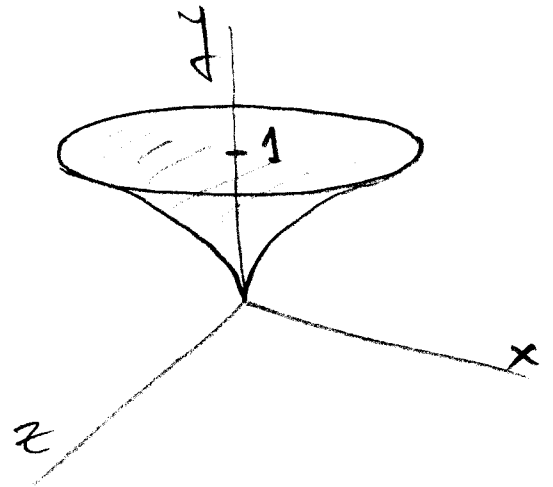
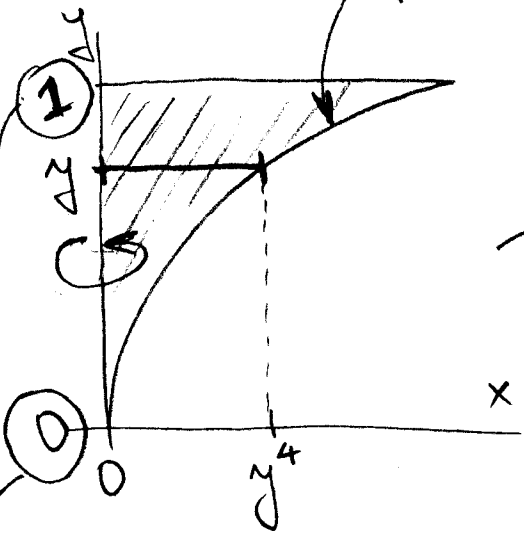


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$$y = \sqrt[4]{x}, \text{ i.e., } x = y^4$$



The cross-section with a plane perpendicular to the y -axis and passing through the point $(0, y, 0)$ is a circle with radius y^4 , so

$$A(y) = \pi (y^4)^2 = \pi y^8,$$

therefore, the volume is

$$V = \int_0^1 A(y) dy = \int_0^1 \pi y^8 dy$$