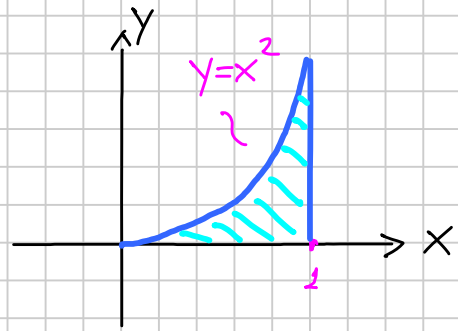


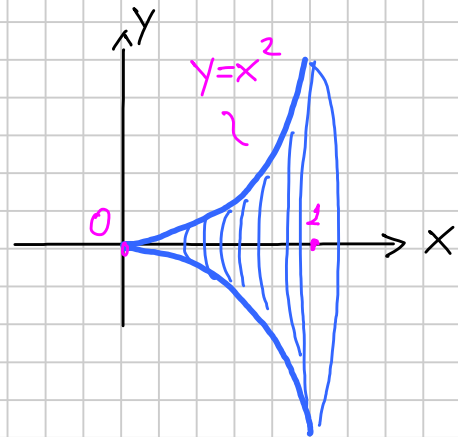
VOLUME SOLIDO DI ROTAZIONE:

$$0 \leq x \leq 1 \quad 0 \leq y \leq x^2$$

ROTAZIONE ATTORNO ASSE X

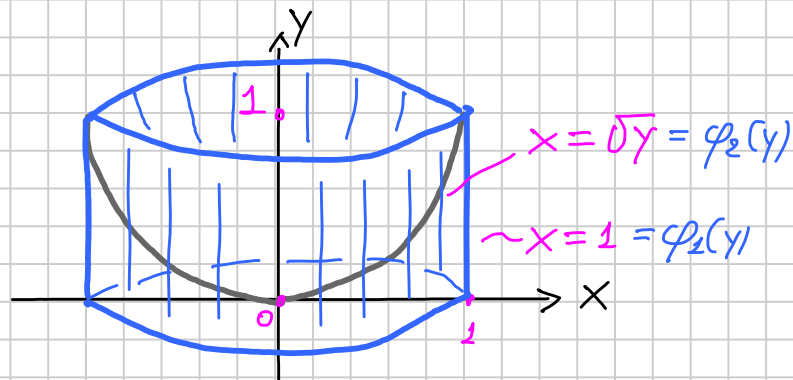
$$V = \int_0^1 \pi \varphi(x)^2 dx \quad \varphi(x) = x^2$$

$$V = \pi \int_0^1 x^4 dx = \pi \left[ \frac{x^5}{5} \right]_0^1 = \frac{\pi}{5}$$

ROTAZIONE ATTORNO ASSE Y

$$V = \int_0^1 [\pi \varphi_1(y)^2 - \pi \varphi_2(y)^2] dy$$

$$\varphi_1(y) = 1 \quad \varphi_2(y) = \sqrt{y}$$



$$V = \pi \int_0^1 (1 - y) dy = \pi \left[ y - \frac{y^2}{2} \right]_0^1 = \pi \left( 1 - \frac{1}{2} \right) = \frac{\pi}{2}$$