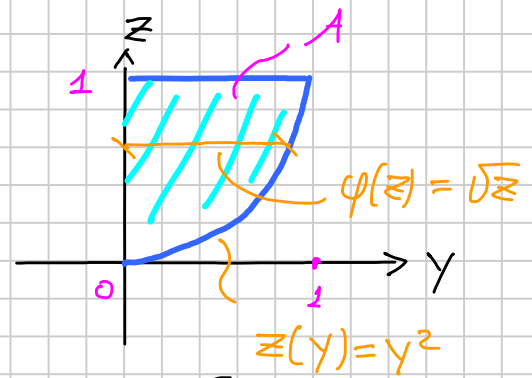


SOLIDO DI ROTAZIONE:

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

ROTAZIONE ATTORNO ASSE Z

$$V = \int_0^1 \pi \varphi(z)^2 dz$$

$$\varphi(z) = \sqrt{z}$$

$$V = \int_0^1 \pi z dz = \pi \left[ \frac{z^2}{2} \right]_0^1 = \frac{\pi}{2}$$

$$z_G = \frac{1}{V} \int_0^1 \pi \varphi(z)^2 \cdot z dz = \frac{\pi}{V} \int_0^1 z^2 dz = 2 \left[ \frac{z^3}{3} \right]_0^1 = \frac{2}{3}$$

