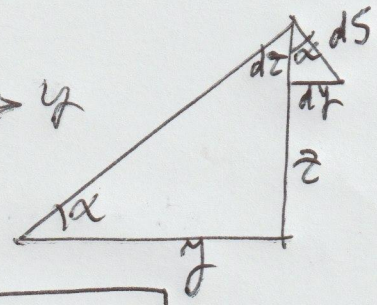


$P(y, z)$



$$R^2 = y^2 + z^2$$

$$\frac{y}{z} = \frac{dy}{dz}$$

$$ds^2 = dy^2 + dz^2 ; ds = \sqrt{dy^2 + dz^2} = dz \sqrt{1 + \left(\frac{dy}{dz}\right)^2} = \sqrt{1 + \left(\frac{y}{z}\right)^2} dz = \frac{R}{y} dz$$

$$A = \int_{z=a}^{z=b} dA = \int_a^b 2\pi y ds = \int_{z=a}^b 2\pi y \frac{R}{y} dz = 2\pi R \int_{z=a}^{z=b} dz = 2\pi R (b-a)$$

⇒ Llesques de la mateixa altura tenen superfície de costat iguals.