· Escrevendo a Integral :

$$\iiint_B (x^2 + z^2) \cdot dx \cdot dy \cdot dz \Rightarrow$$

$$\iint_K \left[x^2 \cdot \int_0^1 dz + \int_0^1 z^2 \cdot dz \right] \cdot dx \cdot dy$$

· Transformando em coordenadas polares

$$x = \rho \cdot \cos(\theta) \qquad e \qquad y = \rho \cdot \sin(\theta)$$

· $$\iint_K \left(x^2 + \frac{1}{3} \right) \cdot dx \cdot dy = \iint_K \left(\rho^2 \cdot \cos^2(\theta) + \frac{1}{3} \right) \cdot \rho \cdot d\rho \cdot d\theta \Rightarrow$$

$$\int_0^{2\pi} \cos^2\theta \cdot d\theta \cdot \int_0^1 \rho^3 \cdot d\rho + \frac{1}{3} \cdot \int_0^{2\pi} d\theta \cdot \int_0^1 \rho \cdot d\rho \Rightarrow$$

$$= \pi \cdot \frac{1}{4} + \frac{1}{3} \cdot \left(2 \cdot \pi \cdot \frac{1}{2} \right) = \frac{\pi}{4} + \frac{\pi}{3} = \frac{7\pi}{12}$$