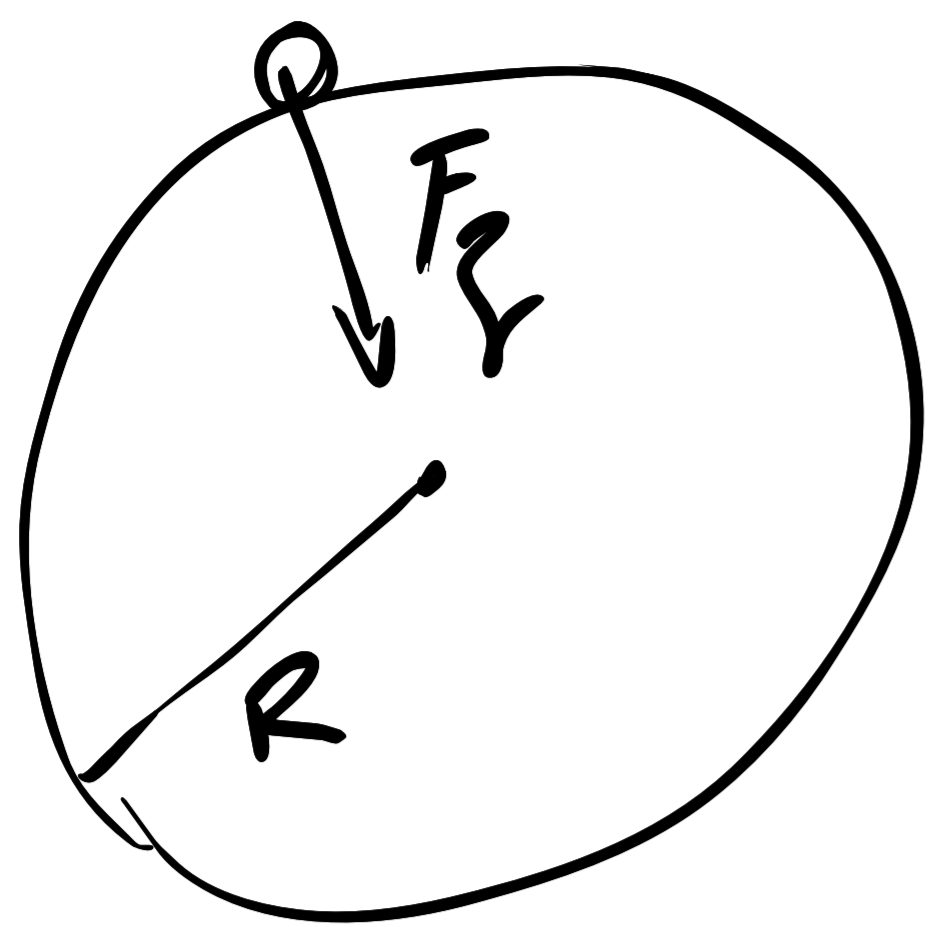


29: EDELVIVES. (p. 72)



$$F_g = G \cdot \frac{M_{LUNA} \cdot m_{CUERPO}}{R^2}$$

$$\Sigma F = m \cdot a \quad \leadsto \quad F = m_{CUERPO} \cdot a$$

$$\cancel{m_{CUERPO}} \cdot a = G \cdot \frac{M_{LUNA} \cdot \cancel{m_{CUERPO}}}{R^2} \quad \Rightarrow \quad a = G \cdot \frac{M_{LUNA}}{R^2}$$

$$a = \left(6'67 \cdot 10^{-11} \frac{N \cdot m^2}{R_g^2} \right) \cdot \frac{(7'2 \cdot 10^{22} R_g)}{(1'74 \cdot 10^6 m)^2} \quad \Rightarrow$$

$$a = 6'67 \cdot 10^{-11} \frac{N \cdot \cancel{m^2}}{R_g^2} \cdot \frac{7'2 \cdot 10^{22} \cancel{R_g}}{(1'74)^2 \cdot 10^{12} \cancel{m^2}} \quad \Rightarrow$$

$$a = \frac{6'67 \cdot 7'2}{(1'74)^2} \cdot 10^{-11+22-12} \frac{N}{R_g} \quad \Rightarrow$$

$$a = 15'86 \cdot 10^{-1} \frac{N}{R_g}$$

$$\Rightarrow \boxed{a = 1'586 \frac{m}{s^2} \sim 1'6 \frac{m}{s^2}}$$