

Problema 893: Calcula la aceleración de la gravedad en la Luna sabiendo que: $M_L = 7,349 \cdot 10^{22} \text{kg}$, $R_L = 1737 \text{km}$ y $G = 6,67 \cdot 10^{-11} \text{N} \cdot \text{m}^2 \cdot \text{kg}^{-2}$

$$M_L = 7,349 \cdot 10^{22} \text{kg}$$

$$R_L = 1737 \text{km}$$

$$F = G \cdot \frac{m \cdot M_L}{R_L^2} = m \cdot g_L$$

$$g_L = G \cdot \frac{M_L}{R_L^2} = 6,67 \cdot 10^{-11} \frac{\text{N} \cdot \text{m}^2}{\text{kg}^2} \cdot \frac{7,349 \cdot 10^{22} \text{kg}}{(1,737 \cdot 10^6 \text{m})^2} = 1,62 \frac{\text{N}}{\text{kg}} = 1,62 \frac{\text{m}}{\text{s}^2}$$