

14-65 (Texto)

$$P_{LUNA} = 20 \text{ N}$$

$$g_{LUNA} = 1.6 \text{ m/s}^2$$

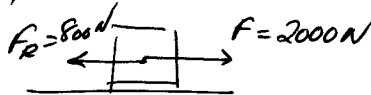
$$P_{LUNA} = m \cdot g_{LUNA}$$

$$20 = m \cdot 1.6$$

$$m = \frac{20}{1.6} = 12.5 \text{ kg}$$

$$P_{TIERRA} = m \cdot g = 12.5 \cdot 9.8 = 122.5 \text{ N}$$

10-64 (Texto)



$$m = 600 \text{ kg}$$

$$\Sigma F = m \cdot a$$

$$F - F_R = m \cdot a$$

$$2000 - 800 = 600 \cdot a$$

$$1200 = 600 a$$

$$\frac{1200}{600} = a$$

$$a = 2 \text{ m/s}^2$$

7. Dinámica de Todos 4º ESO



(Se supone que no hay rozamiento, - no lo dan -)

$$x = 100 \text{ m}$$

$$t = 5 \text{ s}$$

$$v_0 = 0 \text{ m/s}$$

$$a = ?$$

$$x = x_0 + v_0 t + \frac{1}{2} a t^2$$

$$100 = 0 + 0 + \frac{1}{2} a \cdot 5^2$$

$$200 = 25 a$$

$$\frac{200}{25} = a$$

$$a = 8 \text{ m/s}^2$$

$$\Sigma F = m \cdot a$$

$$a) 40 = m \cdot 8 \Rightarrow m = \frac{40}{8} = 5 \text{ kg}$$

b) $t = 5 \text{ seg}$ actuando la fuerza. $v = ?$

$$v = v_0 + a \cdot t$$

$$v = 0 + 8 \cdot 5 = 40 \text{ m/s}$$

Si la F deja de actuar se mueve con $v = \text{cte} = 40 \text{ m/s}$. (no hay rozamiento).

$$v = \frac{s}{t} \Rightarrow 40 = \frac{s}{5} \Rightarrow s = 200 \text{ m}$$