



$$v_2 = 1342,8 \text{ km/h} = \frac{1342,8}{3,6} \text{ m/s} = 373 \text{ m/s}$$

$$h_1 = 39045 \text{ m}$$

$$h_2 = 30500 \text{ m}$$

$$m = 118 \text{ kg} \quad g = 9,8 \text{ m/s}^2$$

$$E_M = \frac{1}{2} m v^2 + m g y$$

$$\Delta \bar{E}_M = \Delta T + \Delta U =$$

$$= \frac{1}{2} m v^2 + m g (h_2 - h_1) = -1,67 \cdot 10^6 \text{ J}$$

$$\Delta \bar{E}_M < 0$$

$$L_{\text{ext}} = \Delta \bar{E}_M$$

$$F_{\text{ext}} \Delta h = \Delta \bar{E}_M$$

$$F_{\text{ext}} = \frac{\Delta \bar{E}_M}{\Delta h} = 196 \text{ N}$$

$$g' = \frac{G M_i}{(R+h)^2}$$

$$\frac{g'}{g} = \frac{(R+h)^2}{R^2} = \left(1 + \frac{h}{R}\right)^2 = 1 + \frac{2h}{R} + \frac{h^2}{R^2}$$

← ERRORE RELATIVO

## PAGINA DEGLI ERRORI

$$\frac{\Delta T}{T}$$

$$\Delta T = T_2 - T_1$$

$$\Delta x = x_2 - x_1$$

$$\underline{E_n = \Delta T + \Delta U}$$

$$\frac{1}{2} m v^2 = \frac{1}{2} 118 (1342,8)^2 = 1,06 \cdot 10^8 \text{ J}$$

$$\frac{1}{2} m v^2 = \frac{1}{2} 118 \text{ kg} \left( 1342,8 \frac{\text{km}}{\text{h}} \right)^2 = 1,06 \text{ kg} \cdot \frac{\text{km}^2}{\text{h}^2}$$

