

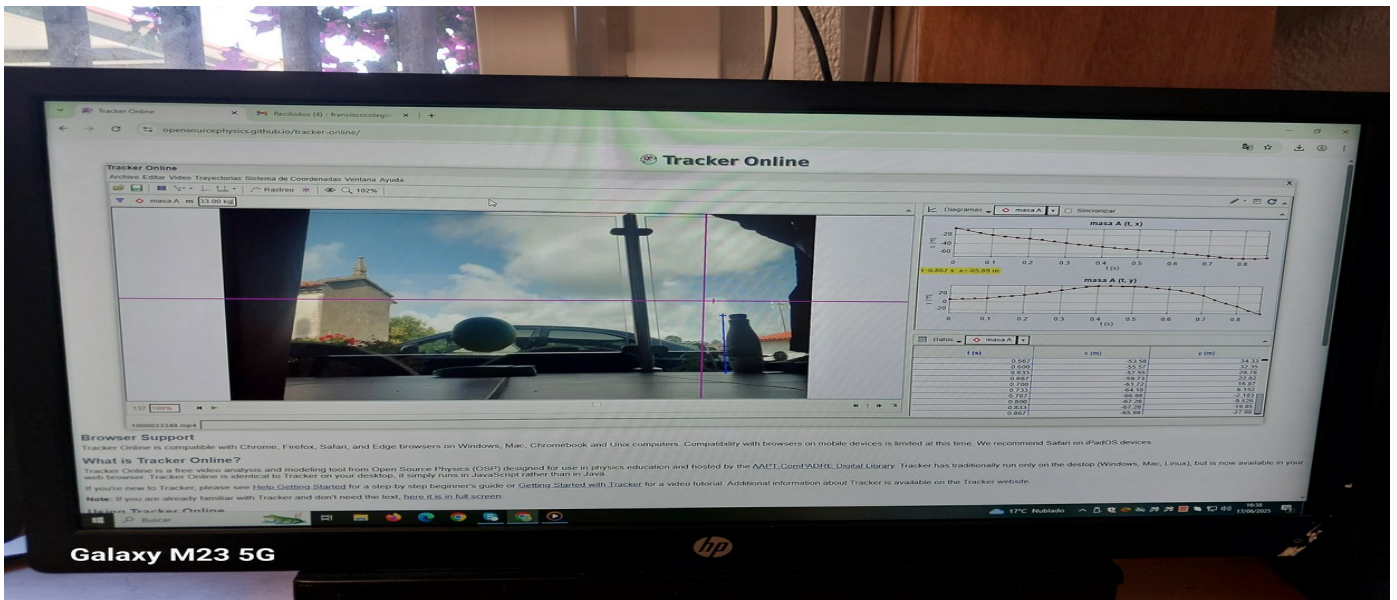
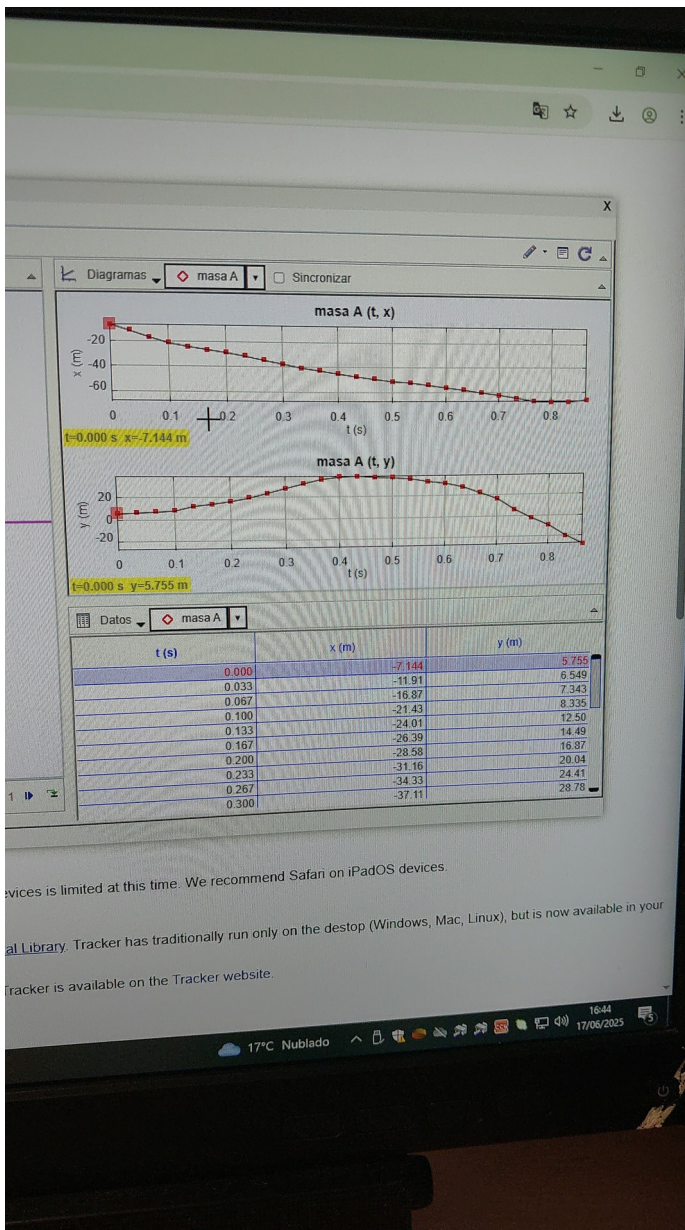
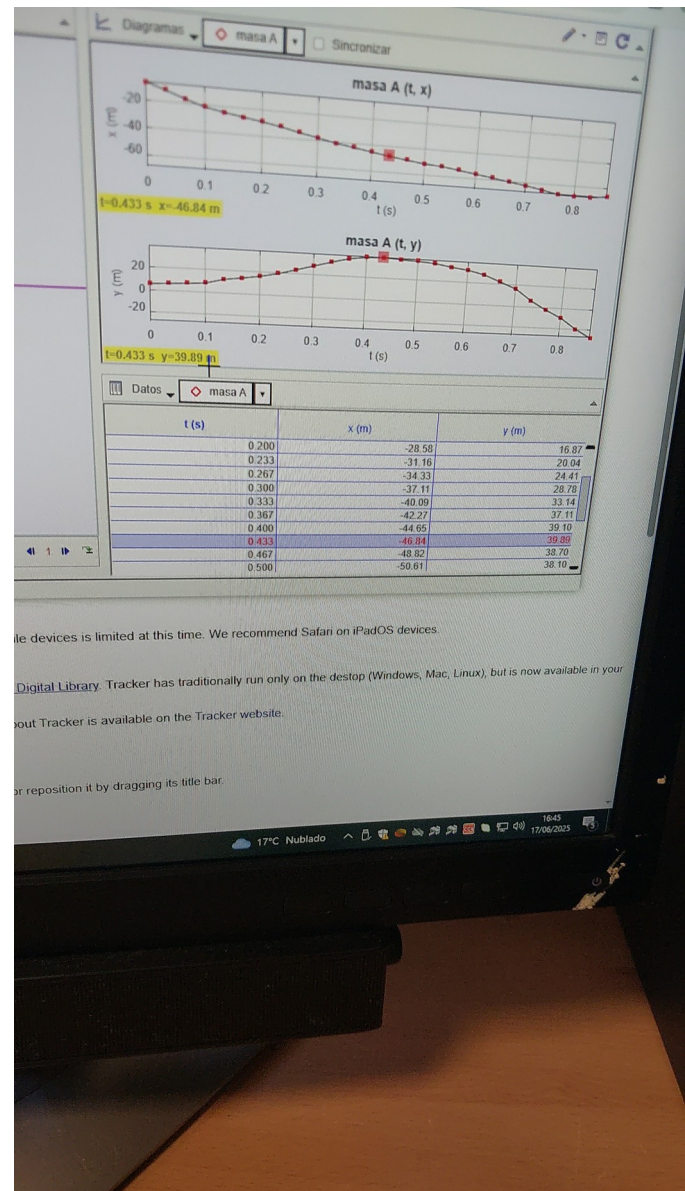


Foto Principal

punto Inicial



Punto mas alto



Cálculo con energía

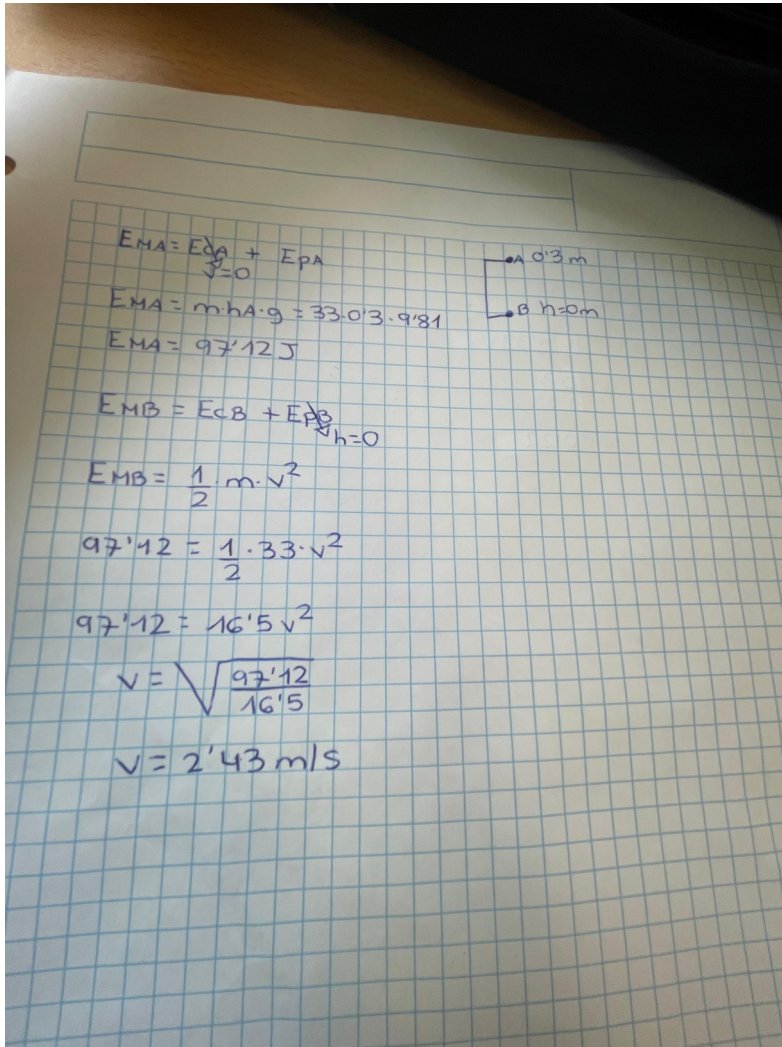
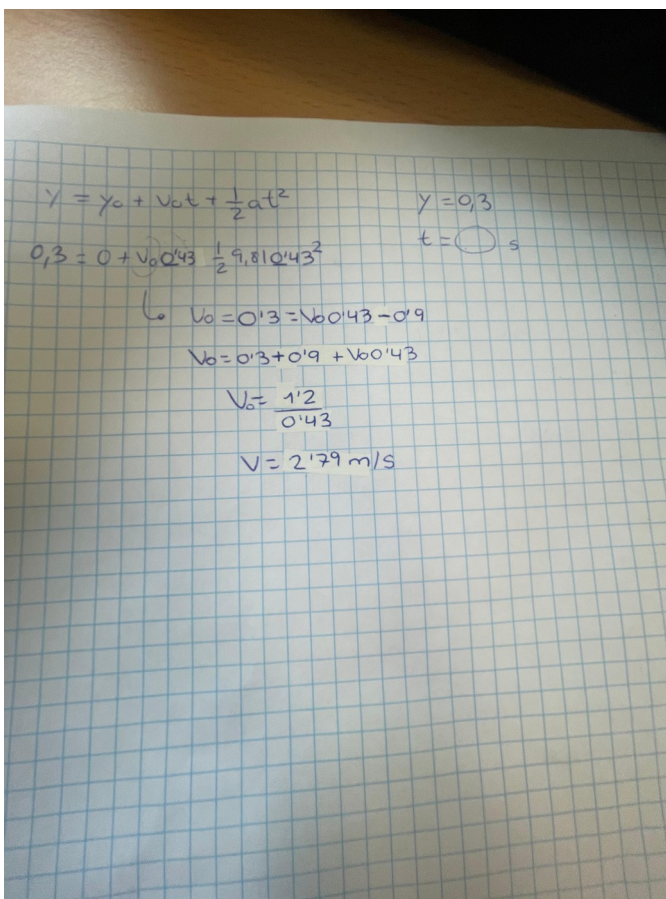


Diagram showing points A and B with heights $h_A = 0.3 \text{ m}$ and $h_B = 0 \text{ m}$.

$$E_{MA} = E_{KA} + E_{PA}$$
$$v = 0$$
$$E_{MA} = m \cdot h_A \cdot g = 33 \cdot 0.3 \cdot 9.81$$
$$E_{MA} = 97.12 \text{ J}$$
$$E_{MB} = E_{KB} + E_{PB}$$
$$h = 0$$
$$E_{MB} = \frac{1}{2} \cdot m \cdot v^2$$
$$97.12 = \frac{1}{2} \cdot 33 \cdot v^2$$
$$97.12 = 16.5 v^2$$
$$v = \sqrt{\frac{97.12}{16.5}}$$
$$v = 2.43 \text{ m/s}$$

Cálculo con MRUA


$$y = y_0 + v_0 t + \frac{1}{2} a t^2$$
$$y = 0.3$$
$$0.3 = 0 + v_0 \cdot 0.43 + \frac{1}{2} \cdot 9.81 \cdot 0.43^2$$
$$t = 0.43 \text{ s}$$
$$v_0 = 0.3 = v_0 \cdot 0.43 - 0.9$$
$$v_0 = 0.3 + 0.9 + v_0 \cdot 0.43$$
$$v_0 = \frac{1.2}{0.43}$$
$$v = 2.79 \text{ m/s}$$