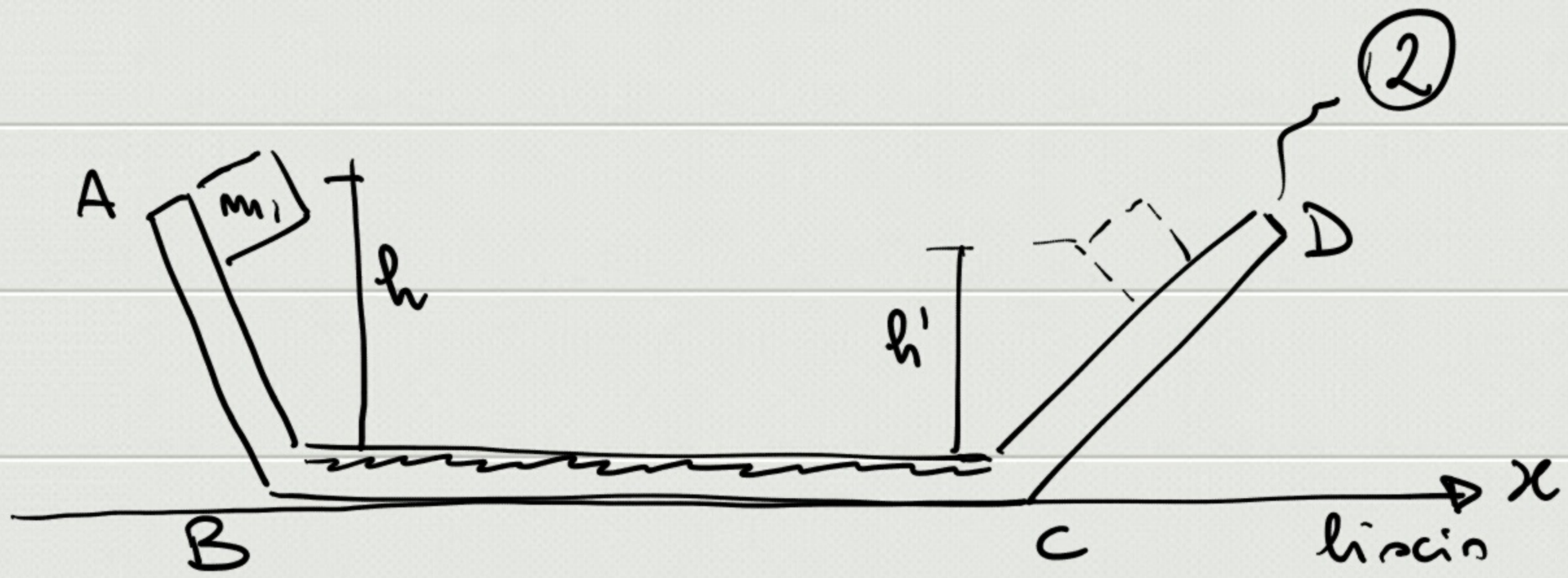


m_2 , m_1

$h = 0.3\ m$ $\quad |\bar{BC}| = l = 0.8\ m$ $\quad \mu = 0.15$, $v_{10} = v_{20} = 0$

$v_2\ (m_1 \to h') = ?$

$\bar{R}^{\varepsilon} \neq 0 \quad \Rightarrow \quad \bar{P} \neq const$

$R^{\varepsilon}_x = 0 \quad \Rightarrow \quad \boxed{P_x = const} \quad \boxed{m_1 v_{1x} + m_2 v_{2x} = 0}$

$=$

0

$$\boxed{v_{1x} = -\frac{m_2}{m_1} v_{2x}} \qquad *$$

$\bar{v} = \bar{v}' + \bar{v}_{o'} \quad \Rightarrow \quad \bar{v}_1 = \bar{v}_1' + \bar{v}_2$

$v_{1,x}' = v_{1,x} - v_{2x}$

$\bar{v}_1'(h') = 0 \quad \Rightarrow \quad v_{1x}(h') = v_{2x}(h')$

$* \quad \Rightarrow \quad v_{1x} = v_{2x} = 0$

$\Rightarrow \quad \boxed{v_2\ (m_1 \to h') = 0}$

$h' = ?$

~~$h' = h$~~

$\mu m_1 g \ell = m_1 g (h' - h)$ NO

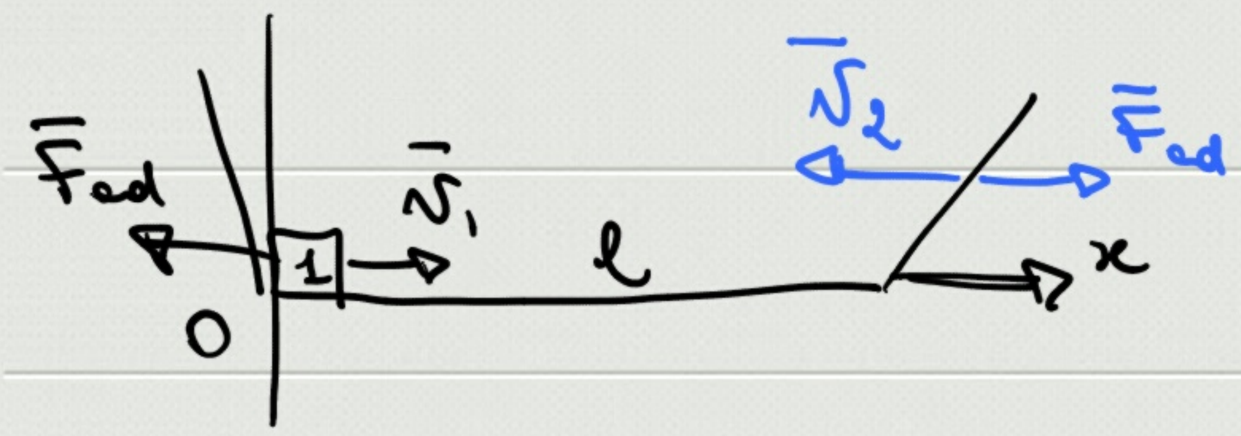
$-\mu m_1 g \ell = \frac{1}{2} m_1 v_{1C}^2 - \frac{1}{2} m_1 v_{1B}^2$ NO

$$\boxed{-\mu m_1 g \ell = m_1 g (h' - h)} \quad *$$

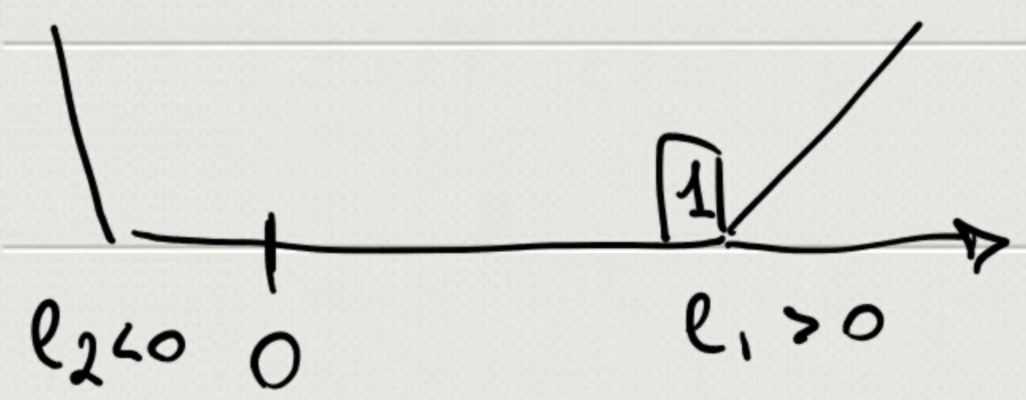
$W_{mc} = \Delta E_m$

$\Delta E_m = \cancel{\Delta E_K} + \Delta E_p =$

$= m_1 g h' - m_1 g h$



$W_{mc} = W_{mc,1} + W_{mc,2}$



$W_{mc,1} = -\mu m_1 g \ell_1 \quad (<0)$

$W_{mc,2} = -\mu m_1 g \int_0^{\ell_2} \bar{v}_r \, d\bar{s} =$

$= +\mu m_1 g \int_0^{\ell_2} ds =$

$= \mu m_1 g \ell_2 \quad (<0)$

$W_{mc} = -\mu m_1 g \ell_1 + \mu m_1 g \ell_2 =$

$= \mu m_1 g \underbrace{(\ell_2 - \ell_1)}_{=-\ell} = -\mu m_1 g \ell$

$-\mu m_1 g \ell = m_1 g (h' - h) \Rightarrow h' = h - \mu \ell = 0.18 \text{ m}$

$v_2\ (v_{1f} = 0) = ?$ $\Rightarrow$ $\boxed{v_{2,f} = 0}$

$d_{attrito} = ?$

$$-\mu m g d = 0 - \frac{1}{2} m v_i^2 \Rightarrow d = \frac{h}{\mu} = 2\,m$$