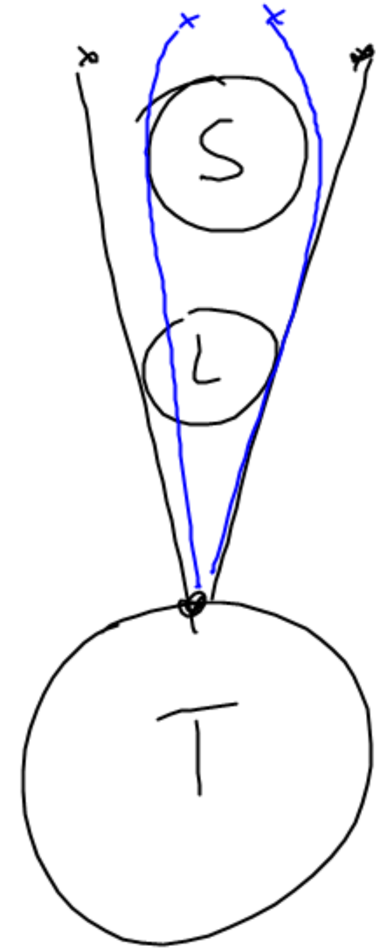
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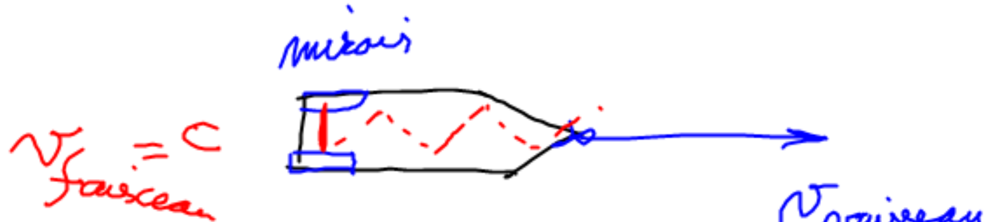
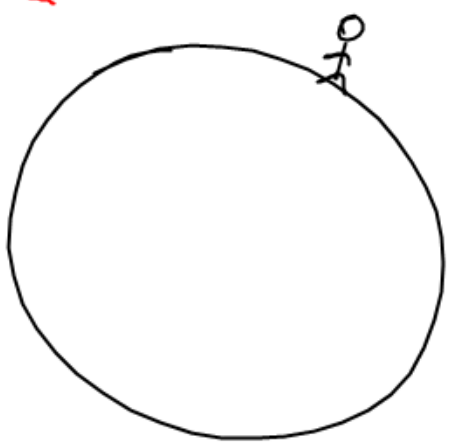
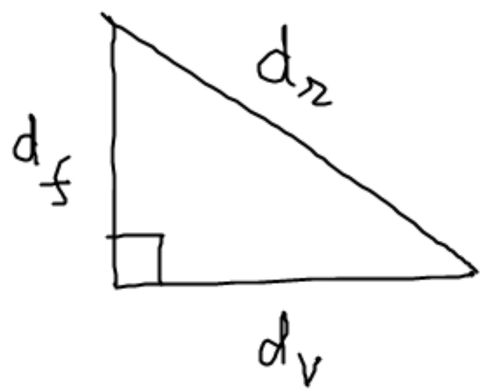
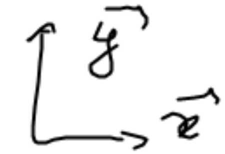


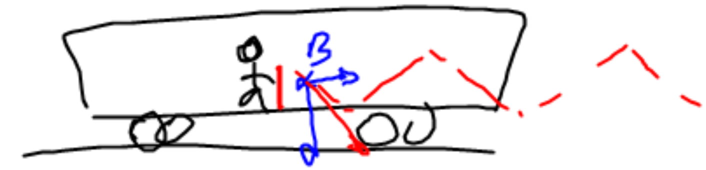




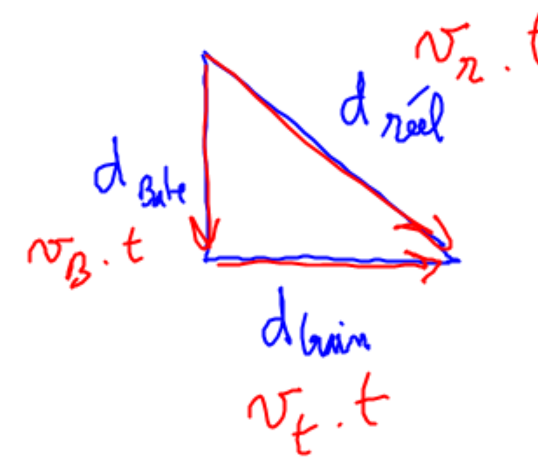


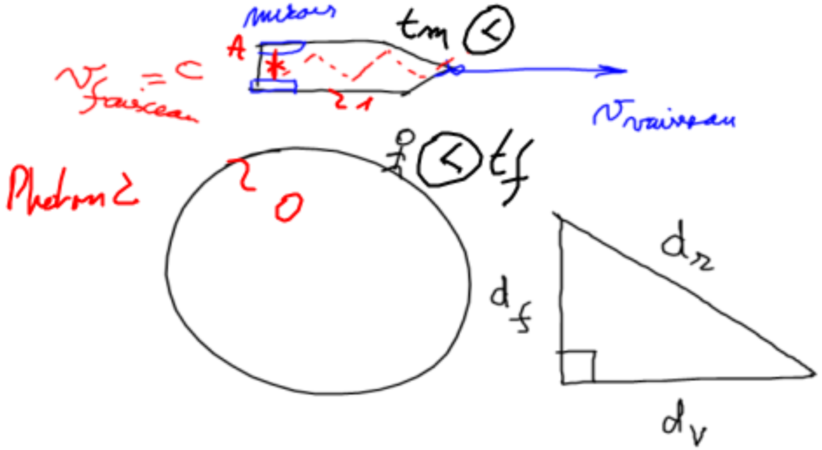
$$v = \frac{d}{t}$$

$$d = v . t$$

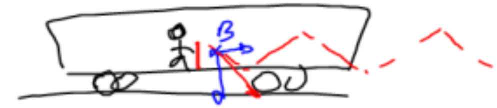


$$\overrightarrow{V_{B2/0}} = \overrightarrow{V_{B2/1}} + \overrightarrow{V_{B1/0}}$$

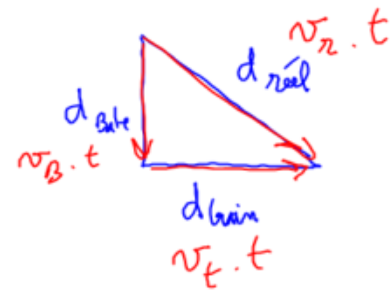




$d = v.t$



$\vec{V}_{B2/0} = \vec{V}_{B2/1} + \vec{V}_{B1/0}$



$(a.b)^2$
$= a^2.b^2$

$$d_r^2 = d_f^2 + d_v^2$$

$$v_r^2.t_r^2 = v_f^2.t_m^2 + v_V^2.t_f^2$$

$$\boxed{c^2.t_f^2 = c^2.t_m^2 + v_v^2.t_f^2}$$

limité à c^2

$$\left(\vec{V}_{A\,2/0} = \vec{V}_{A\,2/1} + \vec{V}_{A\,1/0}\right)$$

$t_{traineau} = t_V = t_{personne\ bouge} = t_{mobile}$
$= t_m$

$t_{\text{"réel"}} = t_{personne\ sur\ terre}$
$= t_{fixe} = t_f$

$$= t_{fixe} = t_f$$

$$c^2 \cdot t_f^2 = c^2 \cdot t_m^2 + v_v^2 \cdot t_f^2$$

$$c^2 \cdot t_f^2 - v_v^2 \cdot t_f^2 = c^2 \cdot t_m^2$$

$$t_f^2 \cdot \left(c^2 - v_v^2\right) = c^2 \cdot t_m^2$$

$$t_f^2 = \sqrt{\frac{c^2}{(c^2 - v_v^2)}} \cdot t_m^2$$

$$t_f = \sqrt{\frac{c^2}{c^2 - v_v^2}} \cdot t_m$$

$$\frac{c^2}{c^2 - v_v^2} = \frac{1}{\frac{c^2 - v_v^2}{c^2}}$$

$$= \frac{1}{1 - \frac{v_v^2}{c^2}}$$

$$t_f = \sqrt{\frac{1}{1 - \frac{v_v^2}{c^2}}} \cdot t_m$$

$$t_f = \sqrt{\frac{1}{1-\frac{v_r^2}{c^2}}} \cdot t_m$$

si $v_r = 0$ alors $t_f = t_m$

si $\lim\limits_{v_r \to c^-} \dfrac{1}{1-\frac{v_r^2}{c^2}} = +\infty$

$$t_f = \infty \cdot t_m$$