

Quelques formules de mécanique

$$\Delta \vec{d} = \frac{\vec{a}t^2}{2} + \vec{v}_i t$$

$$\Delta \vec{d} = \vec{v}_f t - \frac{\vec{a}t^2}{2}$$

$$\Delta \vec{d} = \frac{(\vec{v}_f + \vec{v}_i)t}{2}$$

$$\vec{a} = \frac{\vec{v}_f^2 - \vec{v}_i^2}{2\Delta \vec{d}}$$

$$\vec{a} = \frac{(\vec{v}_f - \vec{v}_i)}{t}$$

$$\vec{a} = \frac{\vec{v}_f^2 - \vec{v}_i^2}{2\Delta \vec{d}}$$

$$\vec{a} = \frac{2(\Delta \vec{d} - \vec{v}_i t)}{t^2}$$

$$\vec{a} = \frac{2(\vec{v}_f t - \Delta \vec{d})}{t^2}$$

$$v_{moy} = \frac{\Delta d}{t}$$

$$\vec{v}_f = \vec{v}_i + \vec{a}t$$

$$\vec{v}_i = \vec{v}_f - \vec{a}t$$

$$\vec{v}_f = \sqrt{\vec{v}_i^2 + 2\vec{a}\vec{d}}$$

$$\vec{v}_i = \sqrt{\vec{v}_f^2 - 2\vec{a}\vec{d}}$$

$$t = \frac{(\vec{v}_f - \vec{v}_i)}{\vec{a}}$$

$$t = \frac{2\Delta \vec{d}}{(\vec{v}_f + \vec{v}_i)}$$

$$t = \frac{\sqrt{\vec{v}_i^2 + 2\vec{a}\vec{d}} - \vec{v}_i}{a}$$

$$t = \frac{\vec{v}_f - \sqrt{\vec{v}_f^2 - 2\vec{a}\vec{d}}}{a}$$

