Se tester sur le calcul littéral

Extraire une grandeur d'une relation mathématique

« j'ai besoin de m'entrainer sur des exemples simples »

$\rho = \frac{m}{V}$	$m = \rho V$	$V = \frac{m}{\rho}$
$n = c \times V$	$c = \frac{n}{V}$	$V = \frac{n}{c}$
$Q = I \times \Delta t$	$I = \frac{Q}{\Delta t}$	$\Delta t = \frac{Q}{I}$
$E_C = \frac{1}{2} \times m \times v^2$	$m = \frac{2E_c}{v^2}$	$v = \sqrt{\frac{2E_c}{m}}$
$E_m = E_C + E_P$	$E_C = E_m - E_p$	$E_P = E_m - E_c$
$E_{PP} = m \times g \times z$	$m = \frac{E_{pp}}{gz}$	$z = \frac{E_{pp}}{mg}$
$A = k \times c$	$c = \frac{A}{k}$	$k = \frac{A}{c}$
$v = \frac{d}{\Delta t}$	$d = v\Delta t$	$\Delta t = \frac{d}{v}$
$P \times V = n \times R \times T$	$n = \frac{PV}{RT}$	$V = \frac{nRT}{P}$
$\sigma = \frac{l}{S} \times G$	$S = \frac{lG}{\sigma}$	$G = \frac{S\sigma}{l}$
$C_1 \times V_1 = C_2 \times V_2$	$V_1 = \frac{C_2 V_2}{C_1}$	$C_2 = \frac{C_1 V_1}{V_2}$
$\tau = R \times C$	$R = \frac{\tau}{C}$	$C = \frac{\tau}{R}$
$E = \frac{U_{AB}}{d}$	$d = \frac{U_{AB}}{E}$	$U_{AB} = Ed$

« je vérifie que je suis à l'aise »

$E = P \times (t_f - t_i)$	$P = \frac{E}{t_f - t_i}$	$t_i = t_f - \frac{E}{P}$
$v = \frac{d}{t_2 - t_1}$	$d = v(t_2 - t_1)$	$t_1 = t_2 - \frac{d}{v}$
$n = \frac{m_1 + m_2}{M}$	$M = \frac{m_1 + m_2}{n}$	$m_1 = nM - m_2$

$n_T = c_1 \times V_1 - c_2 \times V_2$	$c_1 = \frac{n_T + c_2 V_2}{V_1}$	$c_2 = \frac{c_1 V_1 - n_T}{V_2}$
$n_f = n_0 - 3 \times x_{max}$	$n_0 = n_f + 3 x_{max}$	$x_{max} = \frac{n_0 - n_f}{3}$
$E_1 - E_4 = \frac{h \times c}{\lambda}$	$E_4 = E_1 - \frac{hc}{\lambda}$	$\lambda = \frac{hc}{E_1 - E_4}$
$E_f - E_i = (m_f - m_i) \times c^2$	$E_i = E_f - (m_f - m_i) c^2$	$m_i = m_f - \frac{(E_f - E_i)}{c^2}$
$\frac{1}{2} m v^2 = mgh$	$v = \sqrt{2gh}$	$h = \frac{v^2}{2g}$
$F = \frac{G m_1 m_2}{d^2}$	$d = \sqrt{\frac{G m_1 m_2}{F}}$	$m_1 = \frac{F d^2}{G m_2}$
$\mathrm{L} = 10 \times \log\left(\frac{I}{I_0}\right)$	$I = I_0 \times 10^{\frac{L}{10}}$	

☆☆☆ **« je peux faire face à toutes les situations »**

$E_2 = \frac{1}{2} \times m \times v_2^2 + m \times g \times z_2$	$v_2 = \sqrt{\frac{2E_2}{m} - g z_2}$	$m = \frac{2E_2}{v_2^2 + 2g z_2}$
$c_1 \times V_1 - 2 \times x_{max} = 0$	$x_{max} = \frac{c_1 V_1}{2}$	$c_1 = \frac{2 x_{max}}{V_1}$
$v = c \times \frac{f_A - f_E}{f_E}$	$f_E = \frac{c f_A}{v + c}$	$f_A = f_E \left(\frac{v + c}{c}\right) = f_E\left(1 + \frac{v}{c}\right)$
$\frac{T^2}{a^3} = \frac{4\pi^2}{G \times M}$	$T = \sqrt{\frac{4\pi^2 a^3}{GM}}$	$a = \sqrt[3]{\frac{GMT^2}{4\pi^2}} = \left(\frac{GMT^2}{4\pi^2}\right)^{1/3}$
$\sigma = \lambda_1 \times c_1 + \lambda_2 \times c_2$	$c_1 = \frac{\sigma - \lambda_2 c_2}{\lambda_1}$	$\lambda_2 = \frac{\sigma - \lambda_1 c_1}{c_2}$
$E = m \times c \times (\theta_f - \theta_i)$	$m = \frac{E}{c(\theta_f - \theta_i)}$	$\theta_f = \frac{E}{mc} + \theta_i$
$W_{AB}(\vec{F}) = F \times AB \times \cos(\alpha)$	$F = \frac{W_{AB}(\vec{F})}{AB \times \cos\theta}$	$\alpha = \mathrm{Arccos}\left(\frac{W_{AB}(\vec{F})}{F \times AB}\right)$
$\frac{Q}{\Delta t} = \frac{T_1 - T_2}{R_{th}}$	$R_{th} = \frac{(T_1 - T_2) \times \Delta t}{Q}$	$T_2 = T_1 - \frac{Q R_{th}}{\Delta t}$
$T = 2\pi \sqrt{\frac{L}{g}}$	$L = g \frac{T^2}{4\pi^2}$	$g = 4\pi^2 \frac{L}{T^2}$
$u(C_B) = C_B \times \sqrt{+\left(\frac{u(V_B)}{V_B}\right)^2 + \left(\frac{u(V_e)}{V_e}\right)^2}$	$u(V_B) = V_B \sqrt{\left(\frac{u(V_e)}{V_e}\right)^2 - \left(\frac{u(V_B)}{V_B}\right)^2}$	$V_B = \frac{u(V_B)}{\sqrt{\left(\frac{u(V_e)}{V_e}\right)^2 - \left(\frac{u(V_B)}{V_B}\right)^2}}$