$c = 3{,}00\cdot10^{8}\ \mathrm{ms^{-1}}$ $e = 1{,}60\cdot10^{-19}\ \mathrm{C}$ $m_e = 9{,}11\cdot10^{-31}\ \mathrm{kg}$ $m_p = 1{,}67\cdot10^{-27}\ \mathrm{kg}$

$\frac{1}{4\pi\varepsilon_0} = 8{,}99\cdot10^{9}\ \mathrm{mF^{-1}}$ $\sin(\alpha)+\sin(\beta) = 2\sin\frac{\alpha+\beta}{2}\cos\frac{\alpha-\beta}{2}$

$\vec{a}(t) = a_x(t)\,\vec{i} + a_y(t)\,\vec{j} + a_z(t)\,\vec{k}$ $\vec{a}\cdot\vec{b} = |\vec{a}||\vec{b}|\cos(\alpha)$ $\left|\vec{a}\times\vec{b}\right| = |\vec{a}||\vec{b}|\sin(\alpha)$

$\vec{r}(t) = x(t)\,\vec{i} + y(t)\,\vec{j} + z(t)\,\vec{k}$ $\vec{v}(t) = \frac{\mathrm{d}\vec{r}}{\mathrm{d}t}$ $\vec{a}(t) = \frac{\mathrm{d}\vec{v}}{\mathrm{d}t}$ $\vec{a} = \vec{a}_t + \vec{a}_n$ $\vec{a}_t = \frac{\mathrm{d}v}{\mathrm{d}t}\vec{v}^0$ $\vec{a}_n = \frac{v^2}{r}\vec{n}^0$

$x(t) = x_0 + v_{0x}t + \frac{1}{2}a_x t^2$ $v_x(t) = v_{0x} + a_x t$ $v_{PA} = v'_{PB} + v_{BA}$ $\vec{p} = m\vec{v}$ $\sum\vec{F} = m\vec{a}$

$\sum\vec{F} = \frac{\mathrm{d}\vec{p}}{\mathrm{d}t}$ $F_t = fN$ $W = \int\vec{F}\cdot\mathrm{d}\vec{r}$ $W_G = mg(y_1 - y_2)$ $\vec{F}_p = -k\vec{x}$ $W_{F_p} = \frac{1}{2}k(x_1^2 - x_2^2)$

$E_k = \frac{1}{2}mv^2$ $P = \frac{\mathrm{d}W}{\mathrm{d}t}$ $P = \vec{F}\cdot\vec{v}$ $E_p(h) = mgh$ $E_p(x) = \frac{1}{2}kx^2$ $E_m = E_k + E_\mathrm{p}$

$\Delta E_m = W_{nekonz}$ $\Delta E = \Delta mc^2$ $\theta = \frac{s}{r}$ $\vec{\omega} = \frac{\mathrm{d}\theta}{\mathrm{d}t}\vec{n}$ $\vec{\varepsilon} = \frac{\mathrm{d}\vec{\omega}}{\mathrm{d}t}$ $\vec{v} = \vec{\omega}\times\vec{r}$ $\vec{a}_t = \vec{\varepsilon}\times\vec{r}$ $\vec{a}_n = \vec{\omega}\times\vec{v}$

$\theta(t) = \theta_0 + \omega_0 t + \frac{1}{2}\varepsilon t^2$ $I = \sum_i m_i r_i^2$ $I = \int r^2\mathrm{d}m$ $I = I_0 + md^2$ $E_k = \frac{1}{2}I\omega^2$

$\vec{M} = \vec{r}\times\vec{F}$ $\sum\vec{M} = I\vec{\varepsilon}$ $\frac{\mathrm{d}^2x}{\mathrm{d}t^2} + \frac{k}{m}x = 0$ $x(t) = A\sin(\omega t + \varphi_0)$ $\omega = 2\pi f = \frac{2\pi}{T}$

$F_b = -bv$ $m\frac{\mathrm{d}^2x}{\mathrm{d}t^2} + b\frac{\mathrm{d}x}{\mathrm{d}t} + kx = 0$ $\omega' = \sqrt{\frac{k}{m} - \frac{b^2}{4m^2}}$ $x(t) = x_m e^{-bt/2m}\sin(\omega' t + \alpha)$

$y(x,t) = y_m\sin(kx - \omega t + \varphi)$ $k = \frac{2\pi}{\lambda}$ $\lambda = Tc$ $v = \sqrt{\frac{F}{\mu}}$

$y(x,t) = 2y_m\sin(kx)\cos(\omega t)$

$y(x,t) = 2y_m\cos(\frac{\varphi}{2})\sin(kx - \omega t + \frac{\varphi}{2})$

$F_c = \frac{1}{4\pi\varepsilon_0}\frac{|Q_1||Q_2|}{r^2}$ $\vec{E} = \frac{\vec{F}_{Q_0}}{Q_0}$ $\vec{p} = Q\vec{d}$ $\vec{M} = \vec{p}\times\vec{E}$ $I = \frac{\mathrm{d}Q}{\mathrm{d}t}$ $U = RI$ $P = UI$

$\sum\varepsilon_i - \sum R_j I_j = 0$ $\sum I_i = \sum I_j$ $C = \frac{Q}{U}$