$$\vec{F} = m\vec{a}$$

$$-\frac{\hbar}{2m}\nabla^2\psi = [E - V]\,\psi$$

$$\frac{\mathrm{d}^2\psi}{\mathrm{d}x^2} = \frac{2m}{\hbar}\,[V - E]\,\psi$$

$$d^2 = a^2 + b^2$$

$$s(t) = s_0 + v_0 t + \frac{1}{2}at^2$$

$$v^2 - v_0^2 = 2ah$$

$$\vec{F} = -\gamma\frac{mM}{r^2}\hat{r}$$

$$\nabla \times \vec{E} = -\frac{\partial\vec{B}}{\partial t}$$

$$\nabla \cdot \vec{E} = \frac{\rho}{\varepsilon_0}$$

$$\nabla \cdot \vec{B} = 0$$

$$\nabla \times \vec{B} = \mu_0\left[\vec{J} + \varepsilon_0\frac{\partial\vec{E}}{\partial t}\right]$$

$$e^{i\pi} + 1 = 0$$

$$\int(\nabla \times \vec{F}) \cdot \mathrm{d}\vec{A} = \oint \vec{F} \cdot \mathrm{d}\vec{s}$$

$$\iiint (\nabla \cdot \vec{F}) \mathrm{d}V = \iint (\vec{F} \cdot \vec{n}) \mathrm{d}S$$

$$Q = \int C \mathrm{d}T$$

$$\oint Q_{\mathrm{rev}} \mathrm{d}T = 0$$

$$\mathrm{D_T} \nabla^2 T = \frac{\partial T}{\partial t}$$

$$e^x = \sum_{n=0}^{\infty} \frac{x^n}{n!}$$

$$f(x) = \sum_{n=0}^{\infty} \frac{(x - x_0)^n}{n!} \frac{\mathrm{d}^n f}{\mathrm{d}x^n} \bigg|_{x=x_0}$$

$$F(s) = \int_0^{\infty} f(t) e^{-st} \mathrm{d}t$$

$$\frac{v^2}{2} + gz + \frac{p}{\rho} = \text{konst.}$$

$$F(\omega) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{\infty} f(t) e^{-i\omega t} \mathrm{d}t$$

$$f(t) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{\infty} F(\omega) e^{i\omega t} \mathrm{d}\omega$$

$$\beta = \frac{v}{c}$$

$$\gamma = \frac{1}{\sqrt{1 - \frac{v^2}{c^2}}}$$

$$c^2 \nabla^2 \xi = \frac{\partial^2 \xi}{\partial \xi}$$

$$\Delta A \cdot \Delta B \geq \frac{1}{2} \left| \left\langle i \left[\hat{A}, \hat{B} \right] \right\rangle \right|$$

$$\Delta p_x \cdot \Delta x \geq \frac{1}{2} \hbar$$

$$|\langle u, v \rangle| \leq \|u\| \|v\|$$

$$\begin{bmatrix} ct\prime \\ x\prime \\ y\prime \\ z\prime \end{bmatrix} = \begin{bmatrix} \gamma & -\beta\gamma & 0 & 0 \\ -\beta\gamma & \gamma & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix} \begin{bmatrix} ct \\ x \\ y \\ z \end{bmatrix}$$