$$\int\int\int_{V} f(x,y,z)dV = F$$

$$\frac{dx}{dy} = x' = \lim_{h \to 0} \frac{f(x+h) - f(x)}{h}$$

$$|x| = \begin{cases} -x, & \text{if } x < 0 \\ x & \text{if } x \geq 0 \end{cases}$$

$$F(x) = A_0 + \sum_{n=1}^{N} \left[A_n cos\left(\frac{2\pi nx}{P}\right) + B_n sin\left(\frac{2\pi nx}{P}\right) \right]$$

$$\sum_{n} \frac{1}{n^s} = \prod_{p} \frac{1}{1 - \frac{1}{p^s}}$$

$$m\ddot{x} + c\dot{x} + kx = F_0 sin(2\pi ft)$$

$$\begin{aligned} f(x) &= x^2 + 3x + 5x^2 + 8 + 6x \\ &= 6x^2 + 9x + 8 \\ &= x(6x + 9) + 8 \end{aligned}$$

$$X = \frac{F_0}{k} \frac{1}{\sqrt{(1 - r^2)^2 + (2\zeta r)^2}}$$

$$G_{\mu\nu} \equiv R_{\mu\nu} - \frac{1}{2} R g_{\mu\nu} = \frac{8\pi G}{c^4} T_{\mu\nu}$$

$$\mathrm{6CO_2 + 6H_2O \rightarrow C_6H_{12}O_6 + 6O_2}$$

$$\mathrm{SO_4^{2-} + Ba^{2+} \rightarrow BaSO_4}$$

$$\begin{pmatrix} a_{11} & a_{12} & \cdots & a_{1n} \\ a_{21} & a_{22} & \cdots & a_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ a_{n1} & a_{n2} & \cdots & a_{nn} \end{pmatrix} \begin{pmatrix} v_1 \\ v_2 \\ \vdots \\ v_n \end{pmatrix} = \begin{pmatrix} w_1 \\ w_2 \\ \vdots \\ w_n \end{pmatrix}$$

$$\frac{\partial \mathbf{u}}{\partial t} + (\mathbf{u} \cdot \nabla)\mathbf{u} - \nu \nabla^2(\mathbf{u}) = -\nabla \mathbf{h}$$

$$\alpha A \beta B \gamma \Gamma \delta \Delta \pi \Pi \omega \Omega$$