

$$\int\limits_a^b x\,\mathrm{d} x = \left.\frac{x^2}{2}\right|_a^b$$

$$\iiint_V f(x,y,z)\,\mathrm{d} V = F$$

$$\frac{\mathrm{d} x}{\mathrm{d} y}=x'=\lim_{h\rightarrow 0}\frac{f(x+h)-f(x)}{h}$$

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

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

$$\sum_n \frac{1}{n^s} = \prod_p \frac{1}{1-\frac{1}{p^n}}$$

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

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

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

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

$$6\mathrm{CO}_2+6\mathrm{H}_2\mathrm{O}\rightarrow\mathrm{C}_6\mathrm{H}_{12}\mathrm{O}_6+6\mathrm{O}_2$$

$$\mathrm{SO}_4^{2-} + \mathrm{Ba}^{2+} \rightarrow \mathrm{BaSO}_4$$

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

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

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