MathMagic Equation & Font Samples

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \qquad d = \frac{|ax_1 + by_1 + c|}{\sqrt{a^2 + b^2}}$$

$$V(X) = \int_\alpha^\beta (x-m)^2 f(x)dx$$
$$= \int_\alpha^\beta x^2 f(x)\,dx - m^2$$

$$\int_a^b f(x)dx = \lim_{n\to\infty}\sum_{k=0}^{n-1} f(x_k)\cdot\Delta x$$
$$= \lim_{n\to\infty} f(x_{k-1})\cdot\Delta x$$

$$\int_\alpha^\beta [ax + b - \{aE(X) + b\}]^2 f(x)dx$$

$$\sigma(X) = \sqrt{\int_\alpha^\beta (x-m)^2 f(x)dx}$$
$$= \sqrt{\int_\alpha^\beta x^2 f(x)dx - m^2}$$

$$\int_{-\infty}^{+\infty} |a(t)|^2 dx \cdot \left| \lambda - \frac{\int_{-\infty}^{+\infty} A(t)B(t)}{\int_{-\infty}^{+\infty} |B(t)|^2 dt} \right|^2$$

$$\overline{C}_{mn}(\tau) = \lim_{T\to\infty}\left[\frac{1}{T}\int_{-T/2}^{+T/2} g_m(t)g_n(t-\tau)dt\right]$$

$$[e_s] = \sqrt{\int_{-\infty}^{+\infty} \sigma^2 \frac{\exp\left(-x^2/2\sigma^2\right)}{\sqrt{2\pi}\,\sigma}dx} = \sigma$$

$$h(t_n) = \sum_{m=1}^{M}\left(\frac{d\left[z^{1-m}H(z)^{-1}\right]}{dz}\bigg|_{z=z_m}\right)^{-1}$$

$$f(x) = \begin{cases} 0 & \text{if } x < 2a \text{ or } x \geq 2b, \\ \dfrac{x-2a}{(b-a)^2} & \text{if } 2a \leq x \leq a+b, \\ \dfrac{2b-x}{(b-a)^2} & \text{if } a+b \leq x < 2b \end{cases}$$

$$[\overline{\tau}]_{lam} = \begin{bmatrix} \overline{\tau}_{xx} & \overline{\tau}_{xy} & \overline{\tau}_{xz} \\ \overline{\tau}_{yx} & \overline{\tau}_{yy} & \overline{\tau}_{yz} \\ \overline{\tau}_{zx} & \overline{\tau}_{zy} & \overline{\tau}_{zz} \end{bmatrix}_{lam} = \begin{bmatrix} 2\mu\dfrac{\partial\overline{u}}{\partial x} & \mu\left(\dfrac{\partial\overline{u}}{\partial y} + \dfrac{\partial\overline{v}}{\partial x}\right) & \mu\left(\dfrac{\partial\overline{u}}{\partial z} + \dfrac{\partial\overline{w}}{\partial x}\right) \\ \mu\left(\dfrac{\partial\overline{v}}{\partial x} + \dfrac{\partial\overline{u}}{\partial y}\right) & 2\mu\dfrac{\partial\overline{v}}{\partial y} & \mu\left(\dfrac{\partial\overline{v}}{\partial z} + \dfrac{\partial\overline{w}}{\partial y}\right) \\ \mu\left(\dfrac{\partial\overline{w}}{\partial x} + \dfrac{\partial\overline{w}}{\partial z}\right) & \mu\left(\dfrac{\partial\overline{w}}{\partial y} + \dfrac{\partial\overline{v}}{\partial z}\right) & 2\mu\dfrac{\partial\overline{w}}{\partial z} \end{bmatrix}$$

$$P_o(\omega) = \int_{-\infty}^{+\infty}\int_{-\infty}^{+\infty}\int_{-\infty}^{+\infty} h(\xi_1)h(\xi_2) \times \overline{C}_i(\zeta)\exp\{j\omega(\zeta - \xi_1 + \xi_2)\}d\zeta d\xi_1 d\xi_2$$

$$\mathrm{var}_{g^*}\{\overline{l}\} = \left(\int |Q(x)|\,dx\right)^2 - l^2 = \left(\int\left|\sum_{i=1}^{m} a_i L_i(x)\right|dx\right)^2 - \left(\int a_i L_i(x)\,dx\right)$$

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