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# Information and Coding Theory

$$f(x) = \sum_{n=0}^{\infty} \frac{f^{(n)}(0)}{n!} x^n$$

$$\int_R \nabla \cdot \vec{F} dV = \int_{\partial R} \vec{F} \cdot n d\sigma \longleftrightarrow \int_R dw = \int_{\partial R} w$$

$$\neg(P \cdot Q) \equiv \neg P \vee \neg Q, \neg(P \vee Q) \equiv \neg P \cdot \neg Q$$

$$|\langle \chi, \gamma \rangle| \leq |\chi||\gamma|$$

$$\delta_g = \frac{1}{|G|} \sum_{g \in G} x_i(g) \overline{x_i(g)} = \frac{1}{|G|} \sum_{g \in G} k_i x_i(g) \overline{x_i(g)}$$

$$P(A \mid B) = \frac{P(A \cap B)}{P(B)}$$



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$$\int_a^b f(t) dt = F(b) - F(a)$$

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