An Example

Someone

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There are many beautiful formuale in Mathematics; some of them are

- $e^{\imath\pi} + 1 = 0$;
- $\sin^2\theta + \cos^2\theta = 1$;
- $\mathcal{L}_X\omega = \iota_X \mathrm{d}\omega + \mathrm{d}\iota_X\omega\,, \quad \forall\, X \in \mathfrak{X}(M)\,,\ \omega \in \Omega^\bullet(M)$;
- $\int_R \mathrm{d}\omega = \int_{\partial R} \omega$.

There are also longer formulae which deserve more attention:

$$\frac{\mathrm{d}}{\mathrm{d}x}\int_{a(x)}^{b(x)} f(t,x)\,\mathrm{d}t = f(b(x))b'(x) - f(a(x))a'(x) + \int_{a(x)}^{b(x)} \frac{\partial f(x,t)}{\partial x}\,\mathrm{d}t\,,$$

which holds under certain regularity conditions.

Another nice formula for holomorphic functions $f : U \to \mathbb{C}$:

$$f(a) = \frac{1}{2\pi\imath}\oint_\gamma \frac{f(z)}{z-a}\mathrm{d}z\,.$$

Also Physics has some nice formulae. One is

$$\imath\hbar\frac{\partial}{\partial t}|\psi(t)\rangle = \widehat{H}(t)|\psi(t)\rangle\,,$$

another is

$$G_{\mu\nu} + \Lambda g_{\mu\nu} = \frac{8\pi G}{c^4}T_{\mu\nu}\,.$$