$$\pi = 3.14159265358979323846264338327950288419716939937510582097494459230781640$$
$$\frac{d}{dx}\ln(g(x)) = \frac{g'(x)}{g(x)} \quad |G| = \sum [G : G_{s_i}] \quad \int \cos x\,dx = \sin x + C \quad (A - \lambda I)\,x = 0 \quad F_n = F_{n-1} + F_{n-2}$$
$$|\langle x, y\rangle|^2 \le \langle x, x\rangle \cdot \langle y, y\rangle \quad \oint_C f(z)\,dz = 2\pi i \sum \operatorname{Res}(f(z), z_k) \quad \sum \binom{n}{j}\binom{m}{k-j} = \binom{m+n}{k} \quad P \to Q \equiv \neg Q \to \neg P$$
$$\frac{d}{dx} f(x) = \lim_{h\to 0} \frac{f(x+h) - f(x)}{h} \quad a^{p-1} \equiv 1 \pmod{p} \quad (x+y)^p \equiv x^p + y^p \pmod{p} \quad \frac{d}{dx}\csc x = -\csc x \cot x$$
$$x^2 \frac{d^2y}{dx^2} + x\frac{dy}{dx} + (x^2 - \alpha^2)y = 0 \quad \frac{\partial^2 f(x,y)}{\partial x \partial y} = \frac{\partial^2 f(x,y)}{\partial y \partial x} \quad f(a) = \frac{1}{2\pi i}\oint_C \frac{f(z)}{z-a}\,dz \quad G/H = \{gh \mid g \in G\} \quad \mathbb{Z}/2\mathbb{Z}$$
$$\binom{n}{k} = \frac{n!}{k!(n-k)!} \quad \chi(n) \qquad \phi(n) = n\prod_{p|n}\left(1 - \frac{1}{p}\right) \qquad \sum_{n=0}^{\infty} ar^n = \frac{a}{1-r}$$
$$J_f = \frac{\partial \vec{f}}{\partial \vec{x}} \qquad a^2 + b^2 = c^2 \qquad \int_{\partial\Omega} \omega = \int_{\Omega} d\omega \quad \aleph_0 \qquad f(x) = \sum_{n=0}^{\infty} \frac{f^{(n)}(a)}{n!}(x-a)^n$$
$$V - E + F = 2 \qquad e^{i\theta} = \cos\theta + i\sin\theta \qquad a \cdot b = \|a\|\,\|b\|\cos\theta$$
$$\frac{d}{dx}\tan x = \sec^2 x$$
$$\int_{-\infty}^{\infty} e^{-x^2}\,dx = \sqrt{\pi} \qquad \sum_{n=1}^{\infty} \frac{1}{n^2} = \frac{\pi^2}{6} \quad \delta(x) \qquad \sum x_n\, e^{\frac{-i2\pi kN}{n}} \qquad n(\gamma;\zeta) = \int_\gamma \frac{dz}{1-\zeta}$$
$$\lambda x.(\sum n)^2 = \sum n^3 \qquad \sin^2 x + \cos^2 x = 1 \qquad \Omega_F = \sum_{p\in P_F} 2^{-|p|} \qquad x^n + y^n \neq z^n \quad \xi$$
$$e^{\pi i} + 1 = 0 \quad A \cup \overline{A} = U \qquad Pr(\theta) = \sum r^{|n|} e^{in\theta} \qquad \Gamma\, f'(c) = \frac{f(b) - f(a)}{b-a}$$
$$\Box(\Box P \to P) \to P \qquad \frac{a+b}{a} = \frac{a}{b} = \varphi \qquad \gcd(a^{n!} - 1, N) \overset{?}{=} p \qquad \sum_{n=0}^{\infty} p(n)x^n = \prod_{k=1}^{\infty}\left(\frac{1}{1-x^k}\right)$$
$$\det \exp A = \exp \operatorname{tr} A \qquad \varphi = 1.61803398874 \qquad \lim_{x\to c}\frac{f(x)}{g(x)} = \lim_{x\to c}\frac{f'(x)}{g'(x)} \qquad y(x,t) = A\sin(kx - \omega t)$$
$$e^x = \sum \frac{x^n}{n!} \qquad G \qquad \lim_{x\to 0}\frac{\sin x}{x} = 1 \qquad x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \qquad \sum n = \frac{-1}{12} \qquad y = \frac{1}{x},\ \pi \infty \qquad \overline{\frac{}{}}$$
$$p_A(A) = 0\pi \qquad f \qquad \mathbb{R} \qquad \sum_{i=1}^{n} i = \frac{n(n+1)}{2} \qquad V = \pi\int |f^2(y) - g^2(y)|dy \qquad \LaTeX$$
$$K_4 \lhd S_4 \qquad GL_2(\mathbb{R}) \qquad B(x) = e^{e^x - 1} \qquad \sin^{-1}x + \cos^{-1}x = \frac{\pi}{2} \qquad \frac{1}{p} + \frac{1}{q} = 1$$
$$57\ \mathcal{U}\ G/H \xrightarrow[\exists!\,\bar{f}]{} G' \qquad \mathbb{Q} \qquad \mathbb{R} \qquad \sum_{k=0}^{n} e^{\left(\frac{2\pi i k}{n}\right)} = 1 \qquad \mathrm{BB}(3) = 21 \qquad p_u(v) = \frac{u\langle v,u\rangle}{\langle u,u\rangle} \qquad \phi(gh) = \phi(g)\phi(h)$$
$$\bigcirc = \pi R^2 \qquad \mathbb{C} \qquad p \iff q \qquad \tfrac{1}{2}(a+b) \ge \sqrt{ab} \qquad \sum \frac{1}{n} = \infty$$
$$\operatorname{Im}(f_i) = \ker(f_{i+1}) \quad M_p = 2^p - 1 \qquad \|fg\|_1 \le \|f\|_p \|g\|_q \qquad \frac{z}{c} = \frac{x^2}{a^2} - \frac{y^2}{b^2} \qquad 1\ 4\ 6\ 4\ 1 \qquad \frac{|G|}{|H|} = [G:H]$$
$$|\mathcal{O}(x)| = [G:G_x] \quad FA \cong \bigotimes \mathbb{Z}/p_i^{e_i}\mathbb{Z} \qquad \|\vec{x}\|_p := \left(\sum_{i=1}^{n} |x_i|^p\right)^{1/p} \qquad \frac{SN}{N} \cong \frac{S}{S\cap N} \qquad 1\ 3\ 3\ 1$$
$$t_n = n^{n-2} \qquad \forall\varepsilon > 0 \exists\delta > 0 \qquad \frac{x}{e^x - 1} = \sum_{0\le n} \frac{B_n x^n}{n!} \qquad |x|_p = p^{-a} \qquad 1\ 1$$
$$A = LDU \qquad E = mc^2 \qquad a^2 - b^2 = (a+b)(a-b) \qquad \gcd(a,b) = ax + by \qquad 1 \qquad \vec{\beta} = (X^T X)^{-1} X^T \vec{y}$$
$$\zeta(s) = \sum_{n=1}^{\infty} \frac{1}{n^s} \qquad \omega_1 \times [0,1)\ G_\delta = \cap U_i \qquad C_n = \frac{1}{n+1}\binom{2n}{n} \qquad \mathrm{P}(A|B) = \frac{\mathrm{P}(B|A)\mathrm{P}(A)}{\mathrm{P}(B)}$$
$$0 \to G \to H \to K \to 0 \qquad \sum k^2 = \frac{n(n-1)(2n-1)}{6} \qquad x \wedge y = -y \wedge x \qquad 196884 = 196883 + 1$$
$$\nabla = \left(\frac{\partial}{\partial x_1}, \dots, \frac{\partial}{\partial x_n}\right) \qquad \Gamma(z) = \int t^{z-1}e^{-t}\,dt$$
$$(f * g)(t) := \int_{-\infty}^{\infty} f(\tau)g(t-\tau)\,d\tau \qquad 1/2\Box = \triangle$$
$$\pi(n) \sim \frac{n}{\log n} \quad \mathcal{L}\{f\}(s) = \int_0^{\infty} f(t)e^{-st}\,dt$$
$$\frac{d}{dx}f(g(x)) = f'(g(x))g'(x) \qquad \left(\frac{p}{q}\right)\left(\frac{q}{p}\right) = (-1)^{\frac{p-1}{2}\frac{q-1}{2}} \qquad H = -\sum p(x)\log p(x)$$
$$(\wp')^2 = \wp^3 - 60G_4\wp - 140G_6 \quad \uparrow = \{0|*\}$$
$$e = 2.71828182845904523536028747135266249775724709369995957496696762772407663$$