$\pi = 3.14159265358979323846264338327950288419716939937510582097494459230781640$

$\frac{d}{dx}\ln(g(x)) = \frac{g'(x)}{g(x)}$ $\quad |G| = \sum [G : G_{s_i}]$ $\quad \int \cos x \, dx = \sin x + C$ $\quad (A - \lambda I)\, x = 0$ $\quad F_n = F_{n-1} + F_{n-2}$

$|\langle x, y\rangle|^2 \leq \langle x, x\rangle \cdot \langle y, y\rangle$ $\quad \oint_C f(z)\, dz = 2\pi i \sum \operatorname{Res}(f(z), z_k)$ $\quad \sum \binom{n}{j}\binom{m}{k-j} = \binom{m+n}{k}$ $\quad P \to Q \equiv \neg Q \to \neg P$

$\frac{d}{dx} f(x) = \lim_{h\to 0} \frac{f(x+h) - f(x)}{h}$ $\quad a^{p-1} \equiv 1 \pmod{p}$ $\quad (x+y)^p \equiv x^p + y^p \pmod{p}$ $\quad \frac{d}{dx}\csc x = -\csc x \cot x$

$x^2 \frac{d^2 y}{dx^2} + x \frac{dy}{dx} + (x^2 - \alpha^2) y = 0$ $\quad \frac{\partial^2 f(x,y)}{\partial x \partial y} = \frac{\partial^2 f(x,y)}{\partial y \partial x}$ $\quad f(a) = \frac{1}{2\pi i} \oint_{\mathcal{C}} \frac{f(z)}{z-a}\, dz$ $\quad G/H = \{gh \mid g \in G\}$ $\quad \mathbb{Z}/2\mathbb{Z}$

$\binom{n}{k} = \frac{n!}{k!(n-k)!}$ $\quad \chi(n)$

$J_f = \frac{\partial \vec{f}}{\partial \vec{x}}$ $\quad a^2 + b^2 = c^2$

$V - E + F = 2$

$\int_{-\infty}^{\infty} e^{-x^2}\, dx = \sqrt{\pi}$

$\lambda x.(\sum n)^2 = \sum n^3$

$e^{\pi i} + 1 = 0$ $\quad A \cup \bar{A} = U$

$\Box(\Box P \to P) \to P$

$\det \exp A = \exp \operatorname{tr} A$

$e^x = \sum \frac{x^n}{n!}$ $\quad G$ $\quad \lim_{x\to 0} \frac{\sin x}{x} = 1$

$\mathbb{R}$

$p_A(A) = 0$ $\quad \pi$ $\quad f$ $\quad GL_2(\mathbb{R})$

$K_4 \lhd S_4$ $\quad D_8 < S_4$

57 $\quad \mathcal{U}$ $\quad G/H \xrightarrow[\exists! \bar{f}]{} G'$ $\quad \bigcirc = \pi R^2$

$\operatorname{Im}(f_i) = \ker(f_{i+1})$ $\quad M_p = 2^p - 1$

$|\mathcal{O}(x)| = [G : G_x]$ $\quad FA \cong \bigotimes \mathbb{Z}/p_i^{e_i}\mathbb{Z}$

$t_n = n^{n-2}$ $\quad \forall \varepsilon > 0 \exists \delta > 0$

$A = LDU$ $\quad E = mc^2$

$\zeta(s) = \sum_{n=1}^{\infty} \frac{1}{n^s}$ $\quad \omega_1 \times [0,1)$ $\quad G_\delta = \cap U_i$

$0 \to G \to H \to K \to 0$ $\quad \sum k^2 = \frac{n(n-1)(2n-1)}{6}$

$\nabla = \left(\frac{\partial}{\partial x_1}, \ldots, \frac{\partial}{\partial x_n}\right)$ $\quad \Gamma(z) = \int t^{z-1} e^{-t}\, dt$

$\phi(n) = n \prod_{p|n} \left(1 - \frac{1}{p}\right)$

$\mathbb{F}$

$\int_{\partial \Omega} \omega = \int_\Omega d\omega$ $\quad \aleph_0$

$e^{i\theta} = \cos\theta + i \sin\theta$

$\frac{d}{dx} \tan x = \sec^2 x$

$\sum_{n=1}^{\infty} \frac{1}{n^2} = \frac{\pi^2}{6}$ $\quad \delta(x)$

$\sin^2 x + \cos^2 x = 1$

$\frac{a+b}{a} = \frac{a}{b} = \varphi$

$\varphi = 1.61803398874$

$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

$\sum_{i=1}^{n} i = \frac{n(n+1)}{2}$

$\mathbb{Q}$ $\quad \mathbb{R}$

$\sum_{k=0}^{n} e^{\left(\frac{2\pi i k}{n}\right)} = 1$

$\mathbb{C}$

$\|fg\|_1 \leq \|f\|_p \|g\|_q$

$\|\vec{x}\|_p := \left(\sum_{i=1}^{n} |x_i|^p\right)^{1/p}$

$\frac{x}{e^x - 1} = \sum_{0 \leq n} \frac{B_n x^n}{n!}$

$a^2 - b^2 = (a+b)(a-b)$

$\sum_{n=0}^{\infty} ar^n = \frac{a}{1-r}$

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

$a \cdot b = \|a\| \, \|b\| \cos\theta$

$\sum x_n \, e^{\frac{-i 2\pi k N}{n}}$ $\quad n(\gamma; \zeta) = \int_\gamma \frac{dz}{1-\zeta}$

$\Omega_F = \sum_{p \in P_F} 2^{-|p|}$ $\quad x^n + y^n \neq z^n$ $\quad \xi$

$Pr(\theta) = \sum r^{|n|} e^{in\theta}$ $\quad \Gamma$ $\quad f'(c) = \frac{f(b) - f(a)}{b-a}$

$\gcd(a^{n!} - 1, N) \stackrel{?}{=} p$ $\quad \sum_{n=0}^{\infty} p(n) x^n = \prod_{k=1}^{\infty} \left(\frac{1}{1-x^k}\right)$

$\lim_{x\to c} \frac{f(x)}{g(x)} = \lim_{x\to c} \frac{f'(x)}{g'(x)}$ $\quad y(x,t) = A \sin(kx - \omega t)$

$\sum n = \frac{-1}{12}$ $\quad y = \frac{1}{x}, \pi$ $\quad \infty$

$B(x) = e^{e^x - 1}$ $\quad V = \pi \int |f^2(y) - g^2(y)|\, dy$

$\sin^{-1} x + \cos^{-1} x = \frac{\pi}{2}$

$\mathrm{BB}(3) = 21$

$p \iff q$ $\quad p_u(v) = \frac{u \langle v, u\rangle}{\langle u, u\rangle}$

$\frac{z}{c} = \frac{x^2}{a^2} - \frac{y^2}{b^2}$ $\quad \frac{1}{2}(a+b) \geq \sqrt{ab}$

1 4 6 4 1

$\frac{SN}{N} \cong \frac{S}{S \cap N}$ $\quad$ 1 3 3 1

$|x|_p = p^{-a}$ $\quad$ 1 1

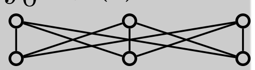
$\gcd(a,b) = ax + by$ $\quad$ 1

$C_n = \frac{1}{n+1}\binom{2n}{n}$

$x \wedge y = -y \wedge x$

$(f * g)(t) := \int_{-\infty}^{\infty} f(\tau) g(t - \tau)\, d\tau$ $\quad {}^1\!/_2 \Box = \triangle$

$\pi(n) \sim \frac{n}{\log n}$ $\quad \mathcal{L}\{f\}(s) = \int_0^\infty f(t) e^{-st}\, dt$

$\frac{d}{dx} f(g(x)) = f'(g(x)) g'(x)$ 

$\left(\frac{p}{q}\right)\left(\frac{q}{p}\right) = (-1)^{\frac{p-1}{2}\frac{q-1}{2}}$ $\quad H = -\sum p(x) \log p(x)$

$(\wp')^2 = \wp^3 - 60 G_4 \wp - 140 G_6$ $\quad \uparrow = \{0 | *\}$

$e = 2.718281828459045235360287471$