

$$\begin{array}{l} \pi=3.14159265358979323846264338327950288419716939937510582097494459230781640\\ \frac{d}{dx}\ln(g(x))=\frac{g'(x)}{g(x)}\,\,|G|=\sum[G:G_{s_i}]\,\,\int\cos x\,dx=\sin x+C\,\,\,(A-\lambda I)\,\vec{v}=0\,\,\,F_n=F_{n-1}+F_{n-2}\\ |\langle x,y\rangle|^2\leq\langle x,x\rangle\cdot\langle y,y\rangle\,\,\oint_Cf(z)\,dz=2\pi i\sum\mathrm{Res}(f(z),z_k)\,\,\sum\binom{n}{j}\binom{m}{k-j}=\binom{m+n}{k}\,\,\,P\rightarrow Q\equiv\neg Q\rightarrow\neg P\\ \frac{d}{dx}f(x)=\lim_{h\rightarrow 0}\frac{f(x+h)-f(x)}{h}\,\,\,a^{p-1}\equiv 1\pmod{p}\,\,\,(x+y)^p\equiv x^p+y^p\pmod{p}\,\,\,\frac{d}{dx}\csc x=-\csc x\cot x\\ x^2\frac{d^2y}{dx^2}+x\frac{dy}{dx}+(x^2-\alpha^2)y=0\,\,\,\frac{\partial^2f(x,y)}{\partial x\partial y}=\frac{\partial^2f(x,y)}{\partial y\partial x}\,\,\,f(a)=\frac{1}{2\pi i}\oint_{\mathcal{C}}\frac{f(z)}{z-a}\,dz\,\,\,G/H=\{gH\mid g\in G\}\,\,\,\mathbb{Z}/2\mathbb{Z}\\ \binom{n}{k}=\frac{n!}{k!(n-k)!}\,\,\,\chi(n)\qquad\qquad\qquad\phi(n)=n\prod\left(1-\frac{1}{p}\right)\\ J_f=\frac{\partial\vec{f}}{\partial\vec{x}}a^2+b^2=c^2\qquad\qquad\qquad\int_{\partial\Omega}\mathbb{F}\omega=\int_{\Omega}d\omega\,\,\,\aleph_0\\ V-E+F=2\qquad\qquad\qquad e^{i\theta}=\cos\theta+i\sin\theta\end{array}$$

$$\begin{array}{l} \sum_{n=0}^\infty ar^n=\frac{a}{1-r}\\ f(x)=\sum_{n=0}^\infty\frac{f^{(n)}(a)}{n!}(x-a)^n\\ a\cdot b=\|a\|\|b\|\cos\theta\end{array}$$

$$\begin{array}{l} \int_{-\infty}^\infty e^{-x^2}\,dx=\sqrt{\pi}\\ \lambda x.(\sum n)^2=\sum n^3\\ e^{\pi i}+1=0\,A\cup\overline{A}=U\\ \Box(\Box P\rightarrow P)\rightarrow P\\ \det\exp A=\exp\operatorname{tr} A\\ e^x=\sum\frac{x^n}{n!}\,G\lim_{x\rightarrow 0}\frac{\sin x}{x}=1\end{array}$$

$$\begin{array}{l} p_A(A)=0\qquad\qquad GL_2(\mathbb{R})\\ K_4\triangleleft S_4\qquad\qquad D_8<S_4\\ 57\,\mathcal{U}\,G/H\qquad\qquad G'_\bigcirc=\pi R^2\end{array}$$

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

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

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

$$A=LDU$$

$$\zeta(s)=\sum_{n=1}^\infty\frac{1}{n^s}$$

$$0\rightarrow G\rightarrow H\rightarrow K\rightarrow 0$$

$$\nabla=\left(\frac{\partial}{\partial x_1},\cdots,\frac{\partial}{\partial x_n}\right)$$

$$\begin{array}{l} E=mc^2\\ \omega_1\times[0,1)G_\delta=\cap U_i\\ \sum k^2=\frac{n(n-1)(2n-1)}{6}\\ \Gamma(z)=\int t^{z-1}e^{-t}\,dt\end{array}$$

$$\begin{array}{l} \frac{d}{dx}\tan x=\sec^2x\\ \sum_{n\geq 1}\frac{1}{n^2}=\frac{\pi^2}{6}\\ \delta(x)\\ |\mathbb{F}|=p^n\\ \phi(gh)=\phi(g)\phi(h)\\ \frac{a+b}{a}=\frac{a}{b}=\varphi\\ \varphi=1.61803398874\\ x=\frac{-b\pm\sqrt{b^2-4ac}}{2a}\end{array}$$

$$\begin{array}{l} \sum_{i=1}^n i=\frac{n(n+1)}{2}\\ \mathbb{Q}\qquad\qquad\mathbb{R}\\ \sum_{k=0}^n e^{\left(\frac{2\pi i k}{n}\right)}=1\\ \mathbb{C}\end{array}$$

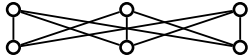
$$\begin{array}{l} \|fg\|_1\leq\|f\|_p\|g\|_q\\ \|\vec{x}\|_p:=(\sum |x_i|^p)^{1/p}\\ \frac{x}{e^x-1}=\sum\frac{B_nx^n}{n!}\\ x^n+y^n\equiv z^n\pmod{p}\end{array}$$

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

$$(f*g)(t):=\int_{-\infty}^{\infty}f(\tau)g(t-\tau)\,d\tau\,^{1/2}\Box=\triangle$$

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

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



$$\binom{p}{q}\binom{q}{p}=(-1)^{\frac{p-1}{2}\frac{q-1}{2}}\,\,H=-\sum p(x)\log p(x)$$

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

$$e=2.718281828459045235360287471$$

$$\sum x_n\,e^{\frac{-2\pi i kn}{N}}$$

$$\Omega_{F=\sum_{p\in P_F}2^{-|p|}}$$

$$Pr(\theta)=\sum r^{|n|}e^{in\theta}$$

$$\gcd(a^{n!}-1,N)\stackrel{?}{=}p$$

$$\lim_{x\rightarrow c}\frac{f(x)}{g(x)}=\lim_{x\rightarrow c}\frac{f'(x)}{g'(x)}$$

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

$$B(x)=e^{e^x-1}$$

$$V=\pi\int|f^2(y)-g^2(y)|dy$$

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

$$p\iff q$$

$$p_u(v)=\frac{u\langle v,u\rangle}{\langle u,u\rangle}$$

$$\frac{z}{c}=\frac{x^2}{a^2}-\frac{y^2}{b^2}$$

$$\frac{SN}{N}\cong\frac{S}{S\cap N}$$

$$|x|_p=p^{-a}$$

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

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

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

$$n(\gamma;\zeta)=\int_{\gamma}\frac{dz}{z-\zeta}$$

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

$$\Gamma\,f'(c)=\frac{f(b)-f(a)}{b-a}$$

$$\sum_{n=0}^{\operatorname{rank}T+\operatorname{nul}T=\dim V}p(n)x^n=\prod_{k=1}^{\infty}\frac{1}{1-x^k}$$

$$y(x,t)=A\sin(kx-\omega t)$$

$$\text{\texttt{LATEX}}$$

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

$$\frac{1}{p}+\frac{1}{q}=1$$

$$\frac{1}{2}(a+b)\geq\sqrt{ab}$$

$$G\hookrightarrow S_{|G|}$$

$$\sum\frac{1}{n}\rightarrow\infty$$

$$\frac{|G|}{|H|}=[G:H]$$

$$\sum\binom{n}{i}x^iy^{n-i}$$

$$\vec{\beta}=(X^TX)^{-1}X^T\vec{y}$$

$$\mathrm{P}(A|B)=\frac{\mathrm{P}(B|A)\mathrm{P}(A)}{\mathrm{P}(B)}$$

$$196884=196883+1$$