数式の書き方の参考

- $\arcsin \dfrac{24}{25}$

  arcsin(24/25)

- $\dfrac{\sqrt{25+24}}{25} = \dfrac{7}{25}$

  (√ (25+24))/25=7/25

- $x^3 - 3\left(-\dfrac{1}{2}x^2\right)^2 - 3 = 0$

  x^3-3(-(1/2)x^2)^2-3=0

- $\dfrac{k^2-9}{k-1} = \dfrac{(3k+7)(k+4)}{2} = \dfrac{3k^2+19k+28}{2} = \dfrac{3(k^2+3k-2)+10k+34}{2} = 5k+17$

  (k^2-9)/(k-1)=(3k+7)(k+4)/2=(3k^2+19k+28)/2=
  (3(k^2+3k-2)+10k+34)/2=5k+17

- $f(x) = \log(x + \sqrt{x^2+1})$

  f(x)=log(x+√ (x^2+1))

- $g(x) = \dfrac{1}{x + \sqrt{x^2+1}}$

  g(x)=1/(x+√ (x^2+1))

- $\cos^2\theta + \sin^2\theta = 1$

  cos^2 θ+sin^2 θ=1

- $\cos\theta = \pm\sqrt{1-\sin^2\theta}$

  cos θ=±√ (1-sin^2 θ)

- $y = \dfrac{Ae^{2x}-B}{Ae^{2x}+B}$

  y=(Ae^(2x)-B)/(Ae^(2x)+B)

- $\dfrac{d^2y}{dx^2} - 3\dfrac{dy}{dx} + 2y = 2x^2+1$

  d^2y/dx^2-3dy/dx+2y=2x^2+1

- $f_x(x,\,y) = \sin(x+y), \quad f_{xy}(x,\,y) = \cos(x+y)$

  f_x(x,y)=sin(x+y),　f_{xy}(x,y)=cos(x+y)
  ∂ f/∂ x(x,y)=sin(x+y)
  ∂ ^2f/(∂ x ∂ y)(x,y)=cos(x+y)

- $a_{n+1} = a_n + a_{n-1}$

  a[n+1]=a[n]+a[n-1]

- $\lim\limits_{x\to 0} \dfrac{(1-\cos x)(1+\cos x)}{3x^2(1+\cos x)}$

  lim[x→0](1-cos x)(1+cos x)/(3x^2(1+cos x))

- $\lim\limits_{x\to 0} \dfrac{x - \left(x - \frac{1}{3!}x^3 + \frac{1}{5!}x^5 - \cdots\right)}{x^3}$

  lim[x→0](x-(x-(1/3!)x^3+(1/5!)x^5-⋯))/x^3

- $\displaystyle\int (x^3 + \frac{1}{\sqrt{1-x^2}})\,dx$

  ∫ (x^3+1/√ (1-x^2)) dx

- $\displaystyle\int \frac{dx}{\sin x} = \int \frac{dt}{t^2-1} = \frac{1}{2}\log\left|\frac{t-1}{t+1}\right| = \frac{1}{2}\log\left|\frac{\cos x - 1}{\cos x + 1}\right| = \frac{1}{2}\log\frac{1-\cos x}{1+\cos x}$

  ∫ dx/sin(x)=∫ dt/(t^2-1)=(1/2)log|(t-1)/(t+1)|
  =(1/2)log|(cos x-1)/(cos x+1)|
  =(1/2)log((1-cos x)/(1+cos x))

- $\displaystyle\int_0^1 \frac{1}{1+t^2}\,dt = [\arctan t]_0^1 = \arctan 1 - \arctan 0 = \frac{\pi}{4}$

  ∫ [0,1] 1/(1+t^2) dt=[arctan t][0,1]=arctan 1-arctan 0=
  π/4

- $A\boldsymbol{v} = \begin{pmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{pmatrix} \begin{pmatrix} x \\ y \\ z \end{pmatrix}$

  Av=(1 2 3 // 4 5 6 // 7 8 9)(x // y // z)
  Av=(1,2,3; 4,5,6; 7,8,9)(x; y; z)

- $|A| = \begin{vmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{vmatrix}$

  |A|=|1 2 3 // 4 5 6 // 7 8 9|
  |A|=|1,2,3; 4,5,6; 7,8,9|

- $\boldsymbol{u} \cdot \boldsymbol{v} = {}^t\boldsymbol{u}\boldsymbol{v}$

  u・v=^tuv

- $A = \boldsymbol{v}\,{}^t\boldsymbol{v}, \quad {}^t\boldsymbol{v}\boldsymbol{v} = 6$

  A=v^tv,　^tvv=6