

1 Wzory matematyczne

$$\sqrt{\frac{2^n}{2_n}} \neq \sqrt[\frac{1}{2}]{1+n}$$

$$\frac{2^k}{2^{k+2}}$$

$$\frac{x^2}{2^{(x+2)(x-2)^3}}$$

$$\log_2 2^8 = 8$$

$$\sqrt[3]{e^x - \log_2 x}$$

$$\lim_{x\rightarrow\infty}\sum_{k=1}^n\frac{1}{k^2}=\frac{\pi^2}{6}$$

$$\int_2^\infty \frac{1}{\log_2 x} dx = \frac{1}{x} \sin x = 1 - \cos^2(x)$$

$$\left[\begin{array}{cccc} a_{11} & a_{12} & \ldots & a_{1K} \\ a_{21} & a_{22} & \ldots & a_{2K} \\ \vdots & \vdots & \ddots & \vdots \\ a_{K1} & a_{K2} & \ldots & a_{KK} \end{array}\right] * \left[\begin{array}{c} x_1 \\ x_2 \\ \vdots \\ x_K \end{array}\right] = \left[\begin{array}{c} b_1 \\ b_2 \\ \vdots \\ b_K \end{array}\right]$$

$$(a_1=a_1(x))\wedge (a_2=a_2(x))\wedge \ldots \wedge (a_k=a_k(x))\Rightarrow (d=d(u))$$

$$[x]_A=\{y\in U: a(x)=a(y), \forall a\in A\}, \text{ where the control object } x\in U$$

$$T:[0,1]\times[0,1]\longrightarrow[0,1]$$

$$\lim_{x\rightarrow\infty}exp(-x)=0$$

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

$$P\bigg(A=2\bigg|\frac{A^2}{B}>4\bigg)$$

$$S^{C_i}(a)=\frac{(\bar{C}_i^a)-\hat{C}_i^a)^2}{Z_{\bar{C}_i^{a^2}}+Z_{\hat{C}_i^{a^2}}},a\in A$$

$$\left\{\begin{array}{l} |z|=|z-4i|\\ \frac{\pi}{4}\geqslant Argz<\frac{\pi}{2} \end{array}\right.$$

$$\begin{cases} |z + 4| = |z + 2 - 2i| \\ |z| \geq 2 \end{cases}$$

$$\begin{cases} |z - 1 - i| < \sqrt{2} \\ \text{Arg}(z - 1 - i) < \frac{\pi}{2} \end{cases}$$

$$\begin{cases} x + 5y = 2 \\ -3x + 6y = 15 \end{cases}$$

$$\begin{cases} x - y - z = 1 \\ 3x + 4y - 2z = -1 \\ 3x - 2y - 2z = 1 \end{cases}$$

$$\begin{cases} y - 3z + 4v = 0 \\ x - 2z = 0 \\ 3x + 2y - 5v = 2 \\ 4x - 5z = 0 \end{cases}$$

$$\begin{bmatrix} 1 & 0 & 0 \\ 0 & 3 & 0 \\ 0 & 0 & 1 \end{bmatrix} * \begin{bmatrix} 1 & 2 & 3 \\ 3 & 1 & 2 \\ 5 & 1 & 3 \end{bmatrix}$$

$$\begin{bmatrix} 0 & 1 & 0 \\ 1 & 0 & 0 \\ 0 & 0 & 1 \end{bmatrix} * \begin{bmatrix} 11 & -2 \\ 6 & -14 \\ -21 & 30 \end{bmatrix}$$

$$\begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 1 & 0 & 1 \end{bmatrix} * \begin{bmatrix} 1 & 1 & 3 \\ 2 & 1 & 4 \\ 1 & 3 & 0 \end{bmatrix}$$

$$\begin{vmatrix} -3 & 2 \\ 8 & -5 \end{vmatrix}$$

$$\begin{vmatrix} \sin \alpha & \cos \alpha \\ \sin \beta & \cos \beta \end{vmatrix}$$

$$\begin{vmatrix} 1 & i & 1+i \\ -i & 1 & 0 \\ 1-i & 0 & 1 \end{vmatrix}$$

$$\left[\begin{array}{c|cc|ccc} 1 & 0 & 0 & 1 & 1 & 1 \\ \hline 0 & 2 & 2 & 1 & 2 & 3 \\ 0 & 2 & 2 & 4 & 5 & 6 \\ \hline 0 & 0 & 0 & 3 & 3 & 1 \\ 0 & 0 & 0 & 3 & 1 & 3 \\ 0 & 0 & 0 & 1 & 3 & 3 \end{array} \right]$$

$$\int_1^{\infty} \frac{dx}{(x+2)^2}$$

$$\int_{-\infty}^{\infty} \frac{dx}{x^2+4}$$

$$\int_{-\infty}^{\infty} x^2 \exp^{-x^3} dx$$

$$\int_1^{\infty} \frac{dx}{\sqrt[3]{3x+5}}$$

$$\log_{\sqrt[3]{5}} 5\sqrt[3]{5}$$

$$\log_{\sqrt[3]{3}} 27$$

$$\log_2 \sqrt{2}$$

$$\lim_{n \rightarrow \infty} \left(\sqrt{n + 6\sqrt{n + 1}} - \sqrt{n} \right)$$

$$\lim_{n \rightarrow \infty} \frac{1 + \frac{1}{2} + \frac{1}{2^2} + \dots + \frac{1}{2^n}}{1 + \frac{1}{3} + \frac{1}{3^2} + \dots + \frac{1}{3^n}}$$

$$\sum_{n=1}^{\infty} (-1)^{n+1} (2n-1)$$

$$\sum_{n=1}^{\infty} \sin \frac{2\pi}{3^n} \cos \frac{3\pi}{3^n}$$

$$\begin{bmatrix} 1 & 2 & 3 \\ 0 & -6 & 7 \end{bmatrix}^T = \begin{bmatrix} 1 & 0 \\ 2 & -6 \\ 3 & 7 \end{bmatrix}$$

$$U_{AB} = \frac{W_{A \rightarrow B}}{q} = \int_A^B \vec{E} * d\vec{l}$$