

Ćwiczenie 4

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Zadanie 4

A.

$$\sqrt{\frac{2^n}{2_n}} \neq \sqrt[3]{1+n}$$

B.

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

C.

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

D.

$$\log_2 2^8 = 8$$

E.

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

F.

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

G.

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

H.

$$\begin{bmatrix} a_{11} & a_{12} & \dots & a_{1K} \\ a_{21} & a_{22} & \dots & a_{2K} \\ \vdots & \vdots & \ddots & \vdots \\ a_{K1} & a_{K2} & \dots & a_{KK} \end{bmatrix} * \begin{bmatrix} x_1 \\ x_2 \\ \vdots \\ x_K \end{bmatrix} = \begin{bmatrix} b_1 \\ b_2 \\ \vdots \\ b_K \end{bmatrix}$$

I.

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

J.

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

K.

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

L.

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

M.

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

N.

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

O.

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