## zadania2

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$$\begin{cases} |z| = |z - 4i| \\ \frac{\pi}{4} \ge Ary \ z < \frac{\pi}{2} \end{cases} \tag{1}$$

$$\begin{cases} |z+4| = |z+2-2i| \\ |z| \ge 2 \end{cases}$$
 (2)

$$\begin{cases} |z - 1 - i| < \sqrt{2} \\ Ary(z - 1 - i) < \frac{\pi}{2} \end{cases}$$
 (3)

$$\begin{cases} x + 5y = 2 \\ -3x + 6y = 15 \end{cases} \tag{4}$$

$$\begin{cases} x - y - z = 1\\ 3x + 4y - 2z = -1\\ 3x - 2y - 2z = 1 \end{cases}$$
 (5)

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

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

$$(5)$$

$$\begin{bmatrix} 1 & 0 & 0 \\ 0 & 3 & 0 \\ 0 & 0 & 1 \end{bmatrix} * \begin{bmatrix} 1 & 2 & 3 \\ 3 & 1 & 2 \\ 5 & 1 & 3 \end{bmatrix}$$
 (7)

$$\begin{bmatrix}
0 & 1 & 0 \\
1 & 0 & 0 \\
0 & 0 & 1
\end{bmatrix} * \begin{bmatrix}
11 & -2 \\
6 & -14 \\
-21 & 30
\end{bmatrix}$$
(8)

$$\begin{bmatrix}
1 & 0 & 0 \\
0 & 1 & 0 \\
1 & 0 & 1
\end{bmatrix} * \begin{bmatrix}
1 & 1 & 3 \\
2 & 1 & 4 \\
1 & 3 & 0
\end{bmatrix}$$
(9)

$$\begin{vmatrix}
-3 & 2 \\
8 & -5
\end{vmatrix}$$
(10)

$$\begin{vmatrix} \sin \alpha & \cos \alpha \\ \sin \beta & \cos \beta \end{vmatrix} \tag{11}$$

$$\begin{vmatrix} 1 & i & 1+i \\ -i & 1 & 0 \\ 1-i & 0 & 1 \end{vmatrix}$$
 (12)

$$\begin{bmatrix}
1 & 0 & 0 & 1 & 1 & 1 \\
0 & 2 & 2 & 1 & 2 & 3 \\
0 & 2 & 2 & 4 & 5 & 6 \\
\hline
0 & 0 & 0 & 3 & 3 & 1 \\
0 & 0 & 0 & 3 & 1 & 3 \\
0 & 0 & 0 & 1 & 3 & 3
\end{bmatrix}$$
(13)

$$\int_{1}^{\infty} \frac{dx}{(x+2)^2} \tag{14}$$

$$\int_{-\infty}^{0} \frac{dx}{x^2 + 4} \tag{15}$$

$$\int_{-\infty}^{\infty} x^2 \exp^{-x^3} dx \tag{16}$$

$$\int_{1}^{\infty} \frac{dx}{\sqrt[3]{3x+5}} \tag{17}$$

$$\log_{\sqrt{5}} 5\sqrt[3]{5} \tag{18}$$

$$\log_{\sqrt[3]{3}} 27 \tag{19}$$

$$\log_2 8\sqrt{2} \tag{20}$$

$$\lim_{n \to \infty} \left( \sqrt{n + 6\sqrt{n} + 1} - \sqrt{n} \right) \tag{21}$$

$$\lim_{n \to \infty} \frac{1 + \frac{1}{2} + \frac{1}{2^2} + \dots + \frac{1}{2^n}}{1 + \frac{1}{3} + \frac{1}{3^2} + \dots + \frac{1}{3^n}}$$
 (22)

$$\sum_{n=1}^{\infty} (-1)^{n+1} (2n-1) \tag{23}$$

$$\sum_{n=1}^{\infty} \sin \frac{2\pi}{3^n} \cos \frac{4\pi}{3^n} \tag{24}$$

$$\begin{bmatrix} 1 & 2 & 3 \\ 0 & -6 & 7 \end{bmatrix}^T = \begin{bmatrix} 1 & 0 \\ 2 & -6 \\ 3 & 7 \end{bmatrix}$$
 (25)

$$U_{AB} = \frac{W_{A \to B}}{q} = \int_{A}^{B} \vec{E} * d\vec{l}$$
 (26)