$$\underline{A} = \begin{pmatrix} 2 & 1 \\ 1 & 2 \end{pmatrix} \to \left(\begin{array}{cc|cc} 2 & 1 & 1 & 0 \\ 1 & 2 & 0 & 1 \end{array}\right) \to \left(\begin{array}{cc|cc} 1 & \frac{1}{2} & \frac{1}{2} & 0 \\ 1 & 2 & 0 & 1 \end{array}\right) \to \left(\begin{array}{cc|cc} 1 & \frac{1}{2} & \frac{1}{2} & 0 \\ 0 & \frac{3}{2} & -\frac{1}{2} & 1 \end{array}\right) \to$$

$$|\underline{A}| = 2^2 - 1^2 = \underline{\underline{3}} \neq 0$$

$$\xrightarrow{\frac{1}{3}(II)} \left(\begin{array}{cc|cc} 1 & \frac{1}{2} & \frac{1}{2} & 0 \\ 0 & \frac{1}{2} & -\frac{1}{6} & \frac{1}{3} \end{array}\right) \xrightarrow{(I)-(II)} \left(\begin{array}{cc|cc} 1 & 0 & \frac{2}{3} & -\frac{1}{3} \\ 0 & \frac{1}{2} & -\frac{1}{6} & \frac{1}{3} \end{array}\right) \to \left(\begin{array}{cc|cc} 1 & 0 & \frac{2}{3} & -\frac{1}{3} \\ 0 & 1 & -\frac{1}{3} & \frac{2}{3} \end{array}\right)$$

$\frac{1}{2}(II)$ $\quad$ (I) $-(I)$ $\quad$ $2(II)$

$$\underline{\underline{\underline{A}^{-1} = \frac{1}{3}\begin{pmatrix} 2 & -1 \\ -1 & 2 \end{pmatrix}}}$$

$$\underline{A} \cdot \underline{A}^{-1} = \frac{1}{3}\begin{pmatrix} 2 & 1 \\ 1 & 2 \end{pmatrix}\begin{pmatrix} 2 & -1 \\ -1 & 2 \end{pmatrix} = \frac{1}{3}\begin{pmatrix} 3 & 0 \\ 0 & 3 \end{pmatrix} = \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix} \checkmark$$

$$A = \begin{pmatrix} 2 & 1 \\ 1 & 2 \end{pmatrix} \xrightarrow[\text{aldet}]{} \begin{pmatrix} 2 & 1 \\ 1 & 2 \end{pmatrix} \xrightarrow[\text{saltu}]{} \begin{pmatrix} 2 & -1 \\ -1 & 2 \end{pmatrix} \xrightarrow[\text{trasposatuta}]{} \begin{pmatrix} 2 & -1 \\ -1 & 2 \end{pmatrix} \rightarrow A^{-1} = \frac{1}{3}\begin{pmatrix} 2 & -1 \\ -1 & 2 \end{pmatrix}$$

$$|A| = 2^2 - 1^2 = \underline{\underline{3}} \neq 0$$

$$D = \begin{pmatrix} 1 & 0 & -1 \\ 3 & 1 & 2 \\ -1 & 1 & 0 \end{pmatrix}$$

$$|D| = 0 + 0 - 3 - 1 - 0 - 2 = \underline{\underline{-6}} \neq 0$$

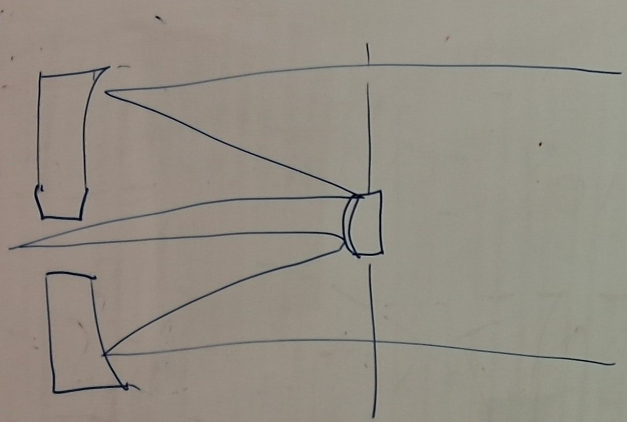
$$\begin{vmatrix} 1 & 2 \\ 1 & 0 \end{vmatrix} = -2 \quad \begin{vmatrix} 3 & 2 \\ -1 & 0 \end{vmatrix} = 2 \quad \begin{vmatrix} 3 & 1 \\ -1 & 1 \end{vmatrix} = 4$$

$$\begin{vmatrix} 0 & -1 \\ 1 & 0 \end{vmatrix} = 1 \quad \begin{vmatrix} 1 & -1 \\ -1 & 0 \end{vmatrix} = -1 \quad \begin{vmatrix} 1 & 0 \\ -1 & 1 \end{vmatrix} = 1$$

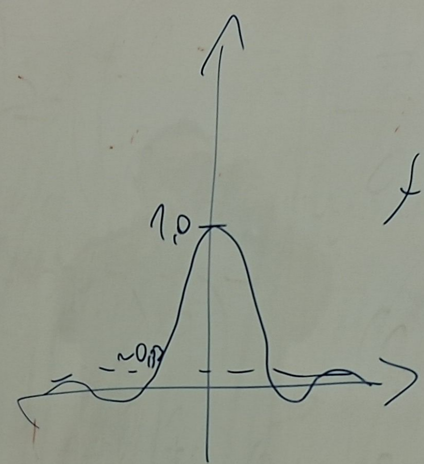
$$\begin{vmatrix} 0 & -1 \\ 1 & 2 \end{vmatrix} = 1 \quad \begin{vmatrix} 1 & -1 \\ 3 & 2 \end{vmatrix} = 5 \quad \begin{vmatrix} 1 & 0 \\ 3 & 1 \end{vmatrix} = 1$$

$$\begin{pmatrix} -2 & 2 & 4 \\ 1 & -1 & 1 \\ 1 & 5 & 1 \end{pmatrix} \xrightarrow[\text{saltu}]{} \begin{pmatrix} -2 & -2 & 4 \\ -1 & -1 & -1 \\ 1 & -5 & 1 \end{pmatrix} \xrightarrow[\text{trastp}]{} \begin{pmatrix} -2 & -1 & 1 \\ -2 & -1 & -5 \\ 4 & -1 & 1 \end{pmatrix}$$

$$A^{-1} = \frac{1}{6}\begin{pmatrix} 2 & 1 & -1 \\ 2 & 1 & 5 \\ -4 & 1 & -1 \end{pmatrix}$$

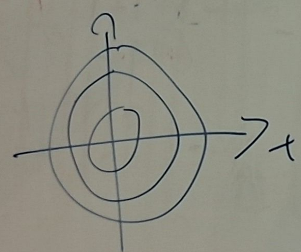


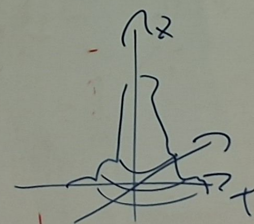
$$c_{ij} = [a_{ij} - b_{ij}]$$



$$f(x) = \frac{\sin(x)}{x}$$

$$b_{ij} = 0,13$$





$$f(x,y) = \frac{\sin\left(\sqrt{x^2+y^2}\right)}{\sqrt{x^2+y^2}}$$

$$a_{ij} \otimes b_{ij} = [a_{ij} - b_{ij}]$$

$$b_{ij} = 0,13$$