Hallar la Inversa de **A**: $\rightarrow A^{-1} = ?$

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

Determinante:

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

[redacted]

① $2.1.2 + 2.-2.2 + 3.-2.0$

$4 + (-8) + 0 \Rightarrow -4 \quad \therefore -4 - (-2) = -2$

② $2.1.3 + 2.-2.0 + 2.-2.2$

$6 + 0 - 8 \Rightarrow -2$

Adj de 2: $+\begin{vmatrix} 1 & -2 \\ 0 & 2 \end{vmatrix} = 1.2 - (-2.0) = 2$

Adj 2: $-\begin{vmatrix} -2 & -2 \\ 2 & 2 \end{vmatrix} = -[(-2.2) - (2.-2)]$

$-[-4 + 4] = 0$

Adj 3: $+\begin{vmatrix} -2 & 1 \\ 2 & 0 \end{vmatrix} = -2.0 - (2.1) = -2$

Adj de -2: $-\begin{vmatrix} 2 & 3 \\ 0 & 2 \end{vmatrix} = 2.2 - (3.0) = 4$

Adj 1: $+\begin{vmatrix} 2 & 3 \\ 2 & 2 \end{vmatrix} = 2.2 - (3.2) = -2$

Adj -2: $-\begin{vmatrix} 2 & 2 \\ 2 & 0 \end{vmatrix} = -[(2.0) - (2.2)] = +4$

Adj de 2: $+\begin{vmatrix} 2 & 3 \\ 1 & -2 \end{vmatrix} = -4 - (3.1) = -7$

Adj 0: $-\begin{vmatrix} 2 & 3 \\ -2 & -2 \end{vmatrix} = -[(2.-2) - (3.-2)]$

$-[-4 + 6] = -2$

Adj 2: $+\begin{vmatrix} 2 & 2 \\ -2 & 1 \end{vmatrix} = 2.1 - (2.-2) = 6$

Transpuesta:
Las filas en Columnas

$$A^t = \begin{vmatrix} 2 & 2 & 3 \\ -2 & 1 & -2 \\ 2 & 0 & 2 \end{vmatrix}$$

Adjunta de A^t:

$$\begin{vmatrix} + & - & + \\ - & + & - \\ + & - & + \end{vmatrix} \Rightarrow \begin{vmatrix} 2 & 2 & 3 \\ -2 & 1 & -2 \\ 2 & 0 & 2 \end{vmatrix} \Rightarrow$$

Resultado de A^t:

$$\Rightarrow \begin{vmatrix} 2 & 0 & -2 \\ 4 & -2 & 4 \\ -7 & -2 & 6 \end{vmatrix} \quad \therefore A^{-1} = \frac{Adj(A^t)}{|A|} \quad \therefore A^{-1} = \frac{\begin{vmatrix} 2 & 0 & -2 \\ -4 & -2 & 4 \\ -7 & -2 & 6 \end{vmatrix}}{-2} \Rightarrow$$

Matriz INVERSA de A :

$$\begin{pmatrix} -1 & 0 & 1 \\ 2 & 1 & -2 \\ 7/2 & 1 & 3 \end{pmatrix}$$