$$|A| = -x - 3 + 3x = 2x - 3$$

$$2x - 3 = 0 \iff x = \frac{3}{2}$$

LA MATRIZ A TIENE INVERSA SI

$$x \neq \frac{3}{2}$$

$$A^{-1} = \frac{(A^t)^{Adj.}}{|A|} = \frac{\begin{pmatrix} x & 3 \\ 1-x & -1 \end{pmatrix}^{Adj.}}{2x-3} = \frac{\begin{pmatrix} -1 & -1+x \\ -3 & x \end{pmatrix}}{2x-3}$$

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