Tarifa Básica

1.

$A = \begin{vmatrix} 1 & a & 0 \\ 0 & 1 & 1 \\ 0 & -1 & 1 \end{vmatrix} \begin{matrix} 1 & a \\ 0 & 1 \\ 0 & -1 \end{matrix}$ $1 \cdot 0 \cdot 11 = 2$ $\det A = 2$

$B = \begin{vmatrix} 1 & 0 & 0 & 3 \\ a & 1 & -1 & 4 \\ 0 & 0 & 0 & 3 \\ 0 & 1 & 1 & 4 \end{vmatrix}$

1 cof (a_{11}) a cof (a_{21})

$1 = \begin{vmatrix} 1 & -1 & 4 \\ 0 & 0 & 3 \\ 1 & 1 & 4 \end{vmatrix} \begin{matrix} 1 & -1 \\ 0 & 0 \\ 1 & 1 \end{matrix}$ $a = \begin{vmatrix} 0 & 0 & 3 \\ 0 & 0 & 3 \\ 1 & 1 & 4 \end{vmatrix} \begin{matrix} 0 & 0 \\ 0 & 0 \\ 1 & 1 \end{matrix}$

$-3 - 3 = -6$

$\det B = -6$

2/

x^2	0	x	$-\frac{1}{10}$	
$7,5$	0	5	2	$= 0$
10	0	4	2	
1	1	1	1	

1 col (a 4a)

$$1 = \begin{vmatrix} x^2 & x & -\frac{1}{10} \\ 7,5 & 5 & 2 \\ 10 & 4 & 2 \end{vmatrix} \begin{matrix} x^2 \\ 7,5 & 5 \\ 10 & 4 \end{matrix} = 0$$

-5 $8x^2$ $15x$

$10x^2 + 20x - 3$

$(10x^2 + 20x - 3) - (-5 + 8x^2 + 15x)$

$10x^2 + 20x - 3 + 5 - 8x^2 - 15x = 0$

$2x^2 + 5x + 2$

$\Delta = b^2 - 4 \cdot a \cdot c$ $\dfrac{-b \pm \sqrt{\Delta}}{2 \cdot a}$

$\Delta = 5^2 - 4 \cdot 2 \cdot 2$

$\Delta = 25 - 16$

$\Delta = 9$

$x_1 \dfrac{-5 + 3}{4} = \dfrac{-2 \times 2}{4 \times 2} = \dfrac{-2}{2}$

$x_2 \dfrac{-5 - 3}{4} = \dfrac{-8}{4} = -2$

$X = -\dfrac{1}{2}$ ou $X = -2$

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

$-1 \ cof \ (a_{24})$

$$-1 = \begin{vmatrix} 0 & 0 & 3 \\ -1 & x & 1 \\ 0 & -1 & -2 \end{vmatrix} \begin{matrix} 0 & 0 \\ -1 & x \\ 0 & -1 \end{matrix} \qquad 2+4=3 \ \text{IMPAR}$$

$$0+0+3 \qquad \longrightarrow -3$$

$x \ cof \ (a_{11})$

$$x = \begin{vmatrix} x & 0 & 0 \\ -1 & x & 1 \\ 0 & -1 & -2 \end{vmatrix} \begin{matrix} x & 0 \\ -1 & x \\ 0 & -1 \end{matrix} \qquad -2x^2 - (-x)$$

$$-2x^2 \quad 0 \quad 0$$

$x \cdot (-2x^2 + x)$

$-2x^3 + x^2$

$\boxed{-2x^3 + x^2 + 3}$ alternativa (A)

4)

$$\begin{pmatrix} X & 1 & 0 & 0 & 0 \\ 0 & X & 1 & 0 & 0 \\ 0 & 0 & X & 1 & 0 \\ 0 & 0 & 0 & X & K \\ 0 & 0 & 0 & 1 & X \end{pmatrix}$$

X

X