

### TAREFA BÁSICA 4

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

$\rightarrow$  escolhido

$A = \begin{vmatrix} 1 & 1 \\ -1 & 1 \end{vmatrix}^{-1}$   $\rightarrow$  escolhido

■ principal  
■ secundária

$A = 1 - (-1)$   
 $A = 1 + 1 = 2$

$\det A = 2$

1. col(42)  $\begin{vmatrix} 1 & 0 & 3 & 1 & 0 \\ 0 & 0 & 3 & 0 & 0 \\ 0 & 1 & 4 & 0 & 1 \end{vmatrix}$   $0 - 3 = -3$

1. col(42)  $\begin{vmatrix} 1 & 0 & 3 & 1 & 0 \\ a & 1 & 4 & a & -1 \\ 0 & 0 & 3 & 0 & 0 \end{vmatrix}$   $(-3) - 0 = -3$

$\det B = -3 + (-3) = -6$

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

1. col(42)

$\begin{vmatrix} x^2 & x & -\frac{1}{10} \\ 7,5 & 5 & 2 \\ 10 & 4 & 2 \end{vmatrix}$   $(10x^2 + 20x - 3) - (8x^2 + 15x - 5)$   
 $2x^2 + 5x + 2 = 0$

$\Delta = (5)^2 - 4 \cdot 2 \cdot 2 = 25 - 16 = 9$   
 $\Delta = 9$

$x = \frac{-5 \pm \sqrt{9}}{2 \cdot 2}$   
 $x = \frac{-5 \pm 3}{4}$

$x' = \frac{-5 + 3}{4} = \frac{-2}{4} = -\frac{1}{2}$

$x'' = \frac{-5 - 3}{4} = \frac{-8}{4} = -2$

9) (PUCSP)

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

excluido

principal

secundária

x. cf(11)

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

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

x.  $(-2x^2 + x)$

$$-2x^3 + x^2$$

-1. cf(21)

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

$3 \rightarrow -3$

$$(-1) \cdot 3 = -3$$

$$(A) - 2x^3 + x^2 + 3$$