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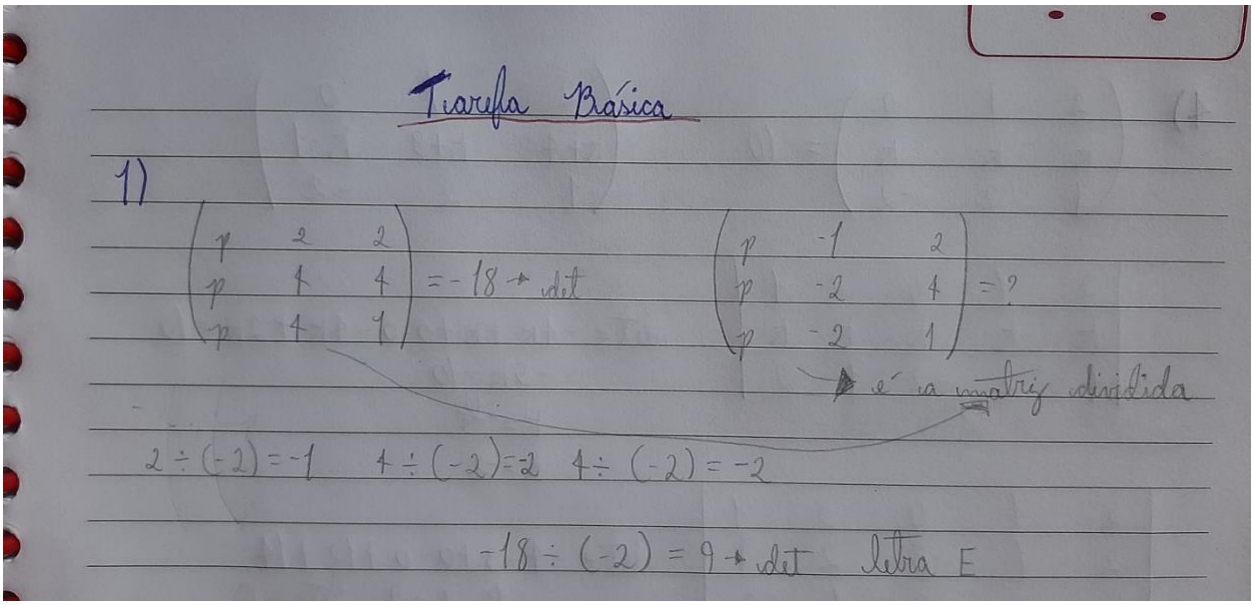
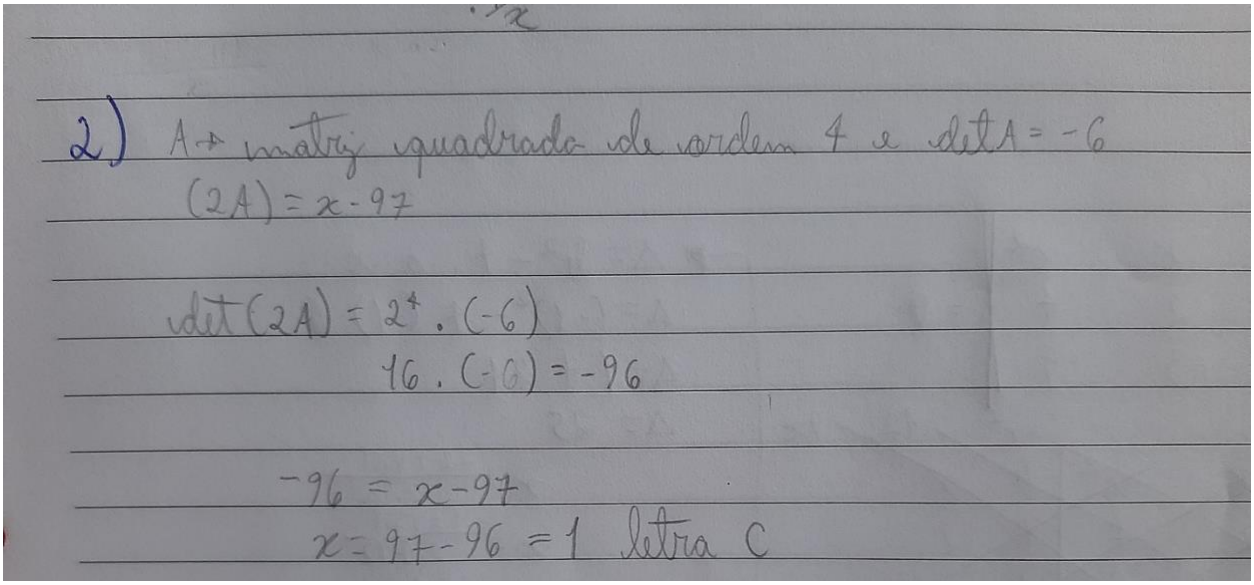
Sala: CTII 317





3)

$$y \begin{vmatrix} a11 & a12 & a13 \\ a21 & a22 & a23 \\ a31 & a32 & a33 \end{vmatrix} \cdot \frac{1}{x}$$

$(\frac{1}{x}) \cdot y \cdot \det A \rightarrow (x/y) \cdot \det A$

letra C

4) $\begin{pmatrix} 2 & 1 & 0 \\ k & k & k \\ 1 & 2 & -2 \end{pmatrix} = 10$ $\begin{pmatrix} 2 & 1 & 0 \\ k+4 & k+3 & k-1 \\ 1 & 2 & -2 \end{pmatrix}$

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

$\det = -4k + k + 0 - 0 - 4k + 2k = 10$

$-5k = 10$

$k = -\frac{10}{5}$

$k = -2$

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

$\det = -4 - 3 + 0 - 0 + 12 + 14$

$16 - 7 = 9$ letra C

5) $\begin{pmatrix} 1 & -11 & 6 \\ -2 & 4 & -3 \\ -3 & -7 & 2 \end{pmatrix}$

letra D = uma fila como combinação linear das outras duas filas paralelas

$\det$ = nulo

6)

$$\begin{vmatrix} 1 & x & x^2 \\ 1 & 2 & 4 \\ 1 & -3 & 9 \end{vmatrix} = 0$$

$2x^2 \quad -12 \quad 9x$

$18 \quad 4x \quad -3x^2$

$18 + 4x - 3x^2 - 2x^2 + 12 - 9x = 0$

$\frac{-5x^2}{\div 5} - \frac{5x}{\div 5} + \frac{30}{\div 5} = 0$

$-x^2 - x + 6 = 0$

$\Delta = b^2 - 4 \cdot a \cdot c$

$\Delta = (-1)^2 - 4 \cdot (-1) \cdot 6$

$\Delta = 1 + 24$

$\Delta = 25$

$x = \frac{-b \pm \sqrt{\Delta}}{2 \cdot a}$

$x = \frac{1 \pm \sqrt{25}}{2 \cdot (-1)}$

$x = \frac{1 \pm 5}{-2}$

$x' = \frac{1+5}{-2} = \frac{6}{-2} = -3$

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

$\{-3, 2\}$

7)

1	0	0	0	0
2	2	0	0	0
3	2	1	0	0
4	2	3	-2	0
5	1	2	3	3

$1.2.1.(-2).3$

$2.(-2).3$

-4.3

-12 letra D