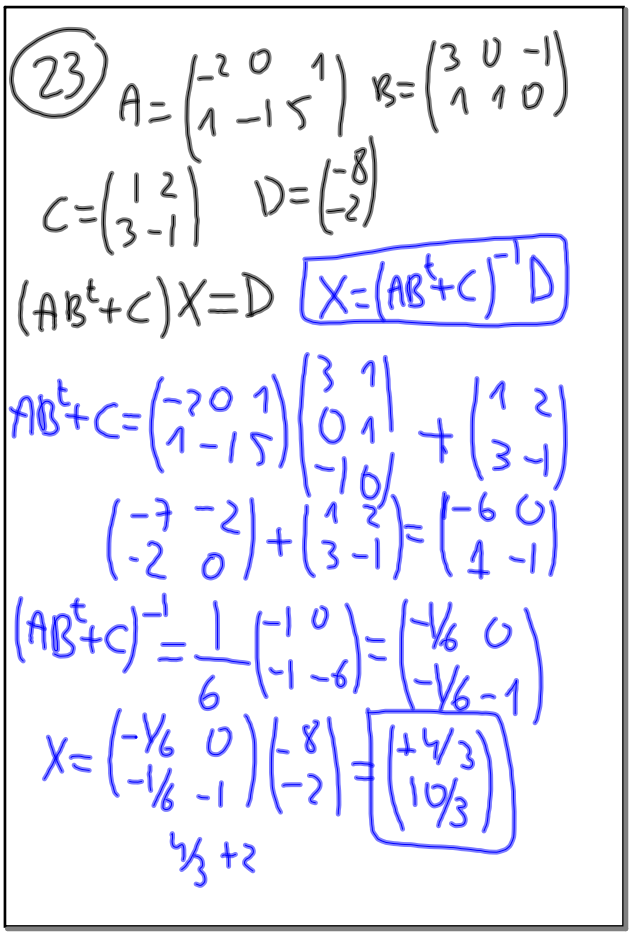
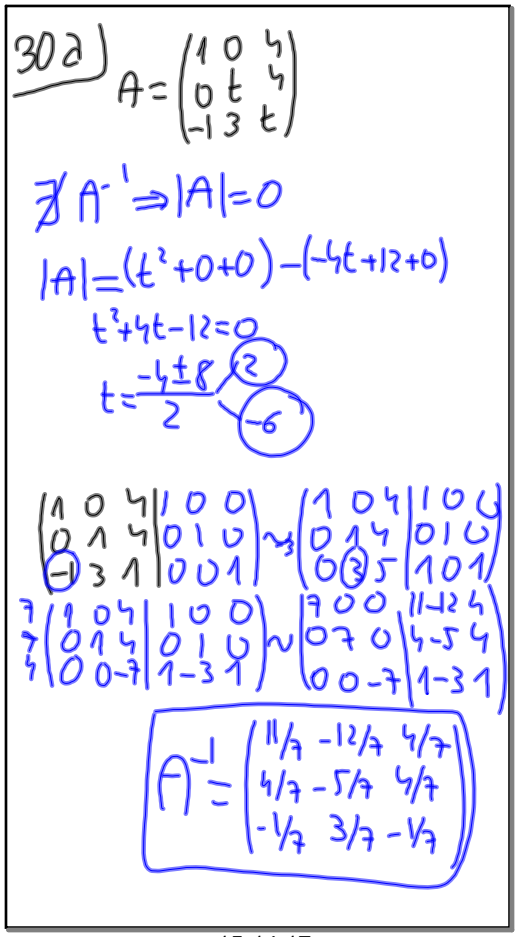
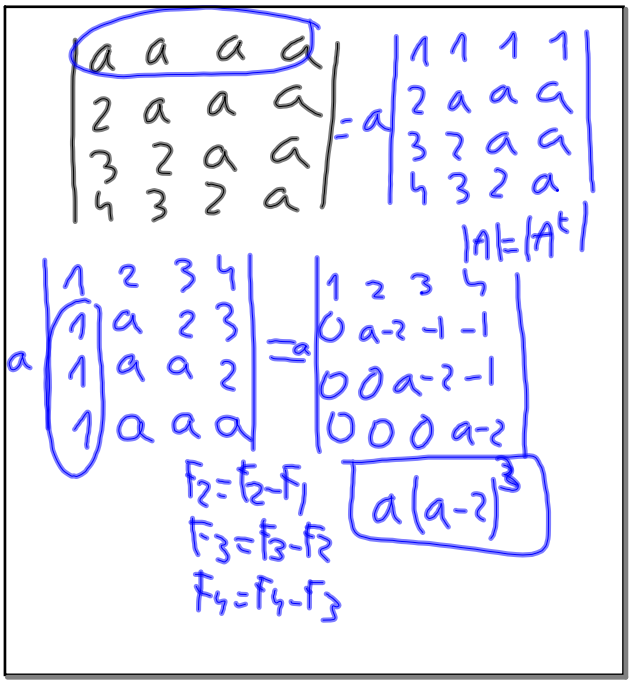


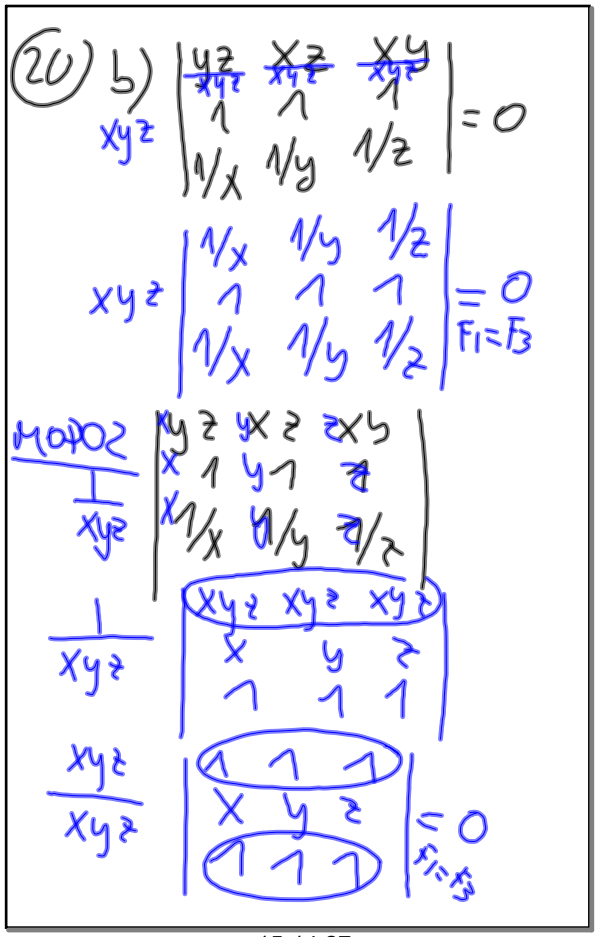
nov 15-14:09



nov 15-14:17



nov 15-14:22



nov 15-14:27

15

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

MODO 1

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

$C_1 = C_1 + C_2$

$$= (x-1)\begin{vmatrix} x & -1 & 1 \\ -1 & x & 1 \\ -1 & 0 & x \end{vmatrix} =$$

$$= (x-1)\left[(x^3+1+0)-(-x+0+x)\right]$$

$$= (x-1)(x^3+1) = 0$$

$x-1=0 \quad x=1$

$x^3+1=0 \quad x=\sqrt[3]{-1}=-1$

$x=1$, $x=-1$

nov 15-14:33

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

$C_1 \leftrightarrow C_3$

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

$\cdot x$

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

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

$$-\begin{vmatrix} (x+1)^2 & -2(x+1) \\ 2x^2+1 & -x^2-x-1 \end{vmatrix}$$

$$-(x+1)\begin{vmatrix} x+1 & -2 \\ 2x^2+1 & -x^2-x-1 \end{vmatrix}$$

$$-(x+1)\left[-x^3-x^2-x^2-x-x-1+4x^2+2\right]$$

$$-(x+1)\left[-x^3+2x^2-2x+1\right] = 0$$

$x+1=0 \quad x=-1$

$x=1$

	-1	2	-2	1
1	-1	1	-1	0
	-1	1	-1	

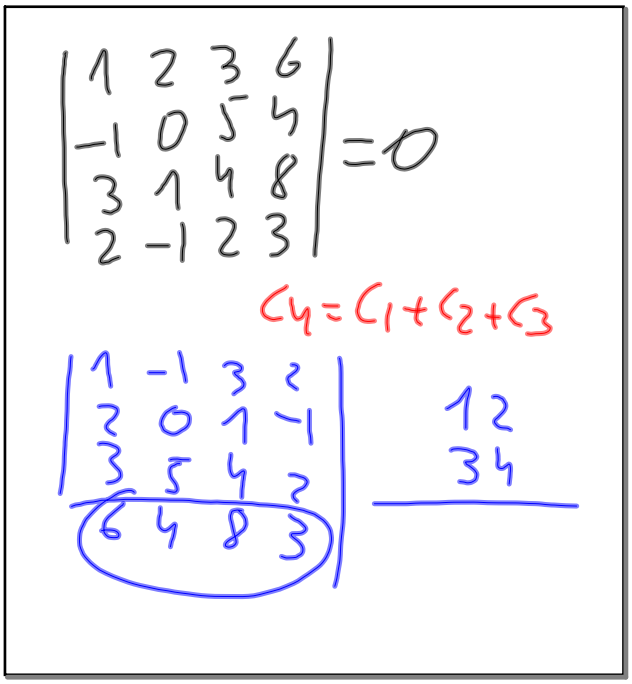
nov 15-14:40

PAG 98 (38) (39) (40)

Autoevaluación

nov 15-14:48

nov 15-14:48


$\begin{vmatrix} 1 & 2 & 3 & 6 \\ -1 & 0 & 5 & 4 \\ 3 & 1 & 4 & 8 \\ 2 & -1 & 2 & 3 \end{vmatrix} = 0$
$C_4 = C_1 + C_2 + C_3$
$\begin{vmatrix} 1 & -1 & 3 & 2 \\ 2 & 0 & 1 & -1 \\ 3 & 5 & 4 & 2 \\ 6 & 4 & 8 & 3 \end{vmatrix}$
$\begin{matrix} 1\,2 \\ 3\,4 \end{matrix}$

nov 15-14:50