1. $\begin{cases} ax + 4y = 1 \\ x + 2y = b \end{cases}$

$D = \begin{vmatrix} a & 4 \\ 1 & 2 \end{vmatrix} = 2a - 4$

$\dfrac{Dx}{D} = \dfrac{2a-4}{2-4b} = \dfrac{2\cdot 2 - 4}{2 - 4\cdot 1/2} = \dfrac{0}{0}$ //

$Dx = \begin{vmatrix} 1 & 4 \\ b & 2 \end{vmatrix} = 2 - 4b$

(B)

2. $\begin{cases} x + Ky = 1 \\ Kx + y = 1-K \end{cases}$

$\begin{matrix} -x \\ L_0 \end{matrix} \begin{pmatrix} 1 & K & \vdots & 1 \\ K & 1 & \vdots & 1-K \end{pmatrix} \sim \begin{pmatrix} & & \vdots & \\ 0 & -K^2+1 & \vdots & -2K+1 \end{pmatrix}$ S.P.D,,

(D)

$K = -1 \quad y = \dfrac{(-2K+1)}{0} \quad y = \dfrac{(-2K+1)}{(-K^2+1)}$ S. impossível

$3C + 2 + 0 = 3C + 2$

3. $\begin{cases} x + 2y + Cz = 1 \\ y + z = 2 \\ 3x + 2y + 2z = -1 \end{cases}$

$D = \begin{vmatrix} 1 & 2 & C \\ 0 & 1 & 1 \\ 3 & 2 & 2 \end{vmatrix} \begin{matrix} 1 & 2 \\ 0 & 1 \\ 3 & 2 \end{matrix}$ $8 - 3C + 2 = 6 - 3C$

$2 + 6 + 0 = 8$

0. b. $6 - 3C \neq 0$

$6/3 = C$

$-3 = |-2 = C_{//}|$

$$0 + 0 + (-12K) = -12K$$

4. $\begin{cases} x - y = K \\ 12x - Ky + z = 1 \\ 36x + Kz = 2 \end{cases}$

$D = \begin{vmatrix} 1 & -1 & 0 \\ 12 & -K & 1 \\ 36 & 0 & K \end{vmatrix} \begin{matrix} 1 & -1 \\ 12 & K \\ 36 & 0 \end{matrix}$ $\quad -K^2 - 36 - 12K$

$$-K^2 + (-36) + 0 = -K^2 - 36$$

$D \neq 0 \quad -K^2 - 36 - 12K \ (-1)$

$$K^2 + 36 + 12K$$

$6 \cdot 6 = 36 \Rightarrow 6 + 6 = 12$

$6/6 + 6/6 = 36$ $\qquad K \neq 6$

(ε)

5. $\begin{cases} x - y + z = 6 \\ 2x + y - z = 3 \\ x + 2y - z = -5 \end{cases}$

$\begin{matrix} -1 & -2 \end{matrix} \begin{pmatrix} 1 & -1 & 1 & : & 6 \\ 2 & 1 & -1 & : & -3 \\ 1 & 2 & -1 & : & -5 \end{pmatrix} \sim \begin{pmatrix} \quad \end{pmatrix}$

$$1 + 1 + (-k)$$

6·6·
$$\begin{cases} x + y + z = K \\ Kx + y + z = 1 \\ x + y - z = K \end{cases}$$

D $\begin{vmatrix} 1 & 1 & 1 \\ K & 1 & 1 \\ 1 & 1 & -1 \end{vmatrix} \begin{matrix} 1 & 1 \\ K & 1 \\ 1 & 1 \end{matrix}$ det = 2K - 2

$$-1 + 1 + K$$

K = 1

(D)

$$x + y + z = K$$
$$x + y + z = 1$$
$$x + y - z = 1$$

$$\begin{cases} x + y + 1 \\ 0 + 0 - 2z = 0 \end{cases}$$ $x + y = 1$
   $x = 1 - y$

K = 1 SPI

$$2m^2 + 16 + 16m$$

7.
$$\begin{cases} x + y + z = 1 \\ mx - 2y + 4z = 5 \\ m^2 + 4y + 16z = 23 \end{cases}$$

D = $\begin{vmatrix} 1 & 1 & 1 \\ m & -2 & 4 \\ m^2 & 4 & 16 \end{vmatrix} \begin{matrix} 1 & 1 \\ m & -2 \\ m^2 & 4 \end{matrix}$ $6m^2 - 12m - 48$

$$-32 + 4m^2 + 4m$$

$\Delta = 12^2 - 4 \cdot 6 \cdot (-48)$ $x_1 = \dfrac{12 + 36}{2 \cdot 6} = \dfrac{48}{12} = 4$

$\Delta = 144 + 1052$

$\Delta = 36$

$x^2 = \dfrac{12 - 36}{2 \cdot 6} = \dfrac{-24}{12} = -2$

$x' \cdot x^2 \Rightarrow 4 - 2 = 2$

tilibra