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Sala: CTII 317

$$2) \begin{cases} 3x + 4y - z = 0 \\ 2x - y + 3z = 0 \\ x + y = 0 \end{cases}$$

$$1 + 0 + 0 = 10$$

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

$$0 + 12 - 2 = 10$$

$\det x =$

0	4	-1	0	4
0	-1	3	0	-1
0	1	0	0	1

$\det y =$

3	0	-1	3	0
2	0	3	2	0
1	0	0	1	0

$$\det Z = \begin{vmatrix} 3 & 4 & 0 & 3 & 4 \\ 2 & 1 & 0 & 2 & -1 \\ 1 & 1 & 0 & 1 & 1 \end{vmatrix} = 0$$

$$x = \frac{\det x}{\det} = \frac{0}{0}$$

$$y = \frac{\det y}{\det} = \frac{0}{0}$$

$$z = \frac{\det z}{\det} = \frac{0}{0}$$

libra D

$$3) \begin{cases} x + y + z = 0 \\ kx + 3y + 4z = 0 \\ x + ky + 3z = 0 \end{cases}$$

$$\begin{vmatrix} 1 & 1 & 1 \\ k & 3 & 4 \\ 0 & k & 3 \end{vmatrix} = 0$$

$$9 + k^2 - 4k - 3k = 0$$

$$k^2 - 7k + 9 = 0$$

$$S = k'' + k'' = \frac{v}{ca}$$

$$S = -\frac{(-7)}{1}$$

$$S = \frac{7}{1}$$

$$S = 7 \quad \text{letra D}$$

$$4) \begin{cases} x + kz = 0 \\ kx + y = 0 \\ x + ky = 0 \end{cases}$$

$$\begin{array}{ccc|cc} \cancel{1} & 0 & \cancel{k} & 1 & 0 \\ \cancel{k} & 1 & \cancel{0} & \cancel{k} & 1 \\ \cancel{1} & \cancel{k} & \cancel{0} & 1 & \cancel{k} \end{array}$$

$$\det = k^3 - k^1 = k^2$$

$$0 \neq k^3$$

$$k^2 = 0$$

$$k = 0$$

$$k \neq 0$$

$$1 + 0 + 0 = 1$$

$$\begin{array}{ccc|cc} \cancel{1} & 0 & \cancel{1} & 1 & 0 \\ \cancel{1} & \cancel{1} & \cancel{0} & 1 & 1 \\ \cancel{1} & \cancel{1} & \cancel{0} & 1 & 1 \end{array}$$

$$\det = 1 - 1 = 0$$

letra A

$$0 + 0 + 1 = 1$$

spiral



$$5) \begin{cases} -x + 2y - 3 = 0 \\ 3x - y + 3 = 0 \\ 2x - 4y + 6 = 0 \end{cases}$$

$$6 + 12 + 36 = 54$$

$$\begin{vmatrix} -1 & 2 & -3 & -1 & 2 \\ 3 & -1 & 3 & 3 & -1 \\ 2 & -4 & 6 & 2 & -1 \end{vmatrix} \det = 54 - 54 = 0$$

$$6 + 12 + 36 = 54$$

$$\det x = \begin{vmatrix} 0 & 2 & -3 & 0 & 0 \\ 0 & -1 & 3 & 0 & -1 \\ 0 & -4 & 6 & 2 & 4 \end{vmatrix} = 0$$

$$0 \quad 0 \quad 0$$

$$\det y = \begin{vmatrix} -1 & 0 & -3 & -1 & 0 \\ 3 & 0 & 3 & 3 & 0 \\ 2 & 0 & 6 & 2 & 0 \end{vmatrix} = 0$$

$$0 \quad 0 \quad 0$$

$$\det z = \begin{vmatrix} -1 & 2 & 0 & -1 & 2 \\ 3 & -1 & 0 & 3 & -1 \\ 2 & -4 & 0 & 2 & -4 \\ 0 & 0 & 0 & 0 & 0 \end{vmatrix} = 0$$

$$x = \frac{dx}{dt} = \frac{0}{0}$$

$$y = \frac{dy}{dt} = \frac{0}{0}$$

$$z = \frac{dz}{dt} = \frac{0}{0}$$

let's B