

2.5.21

pour éliminer
z

$$j) \begin{cases} (1) & x + y + z = 25 \\ (2) & x - y + z = 5 \\ (3) & x - 2y + 2z = -10 \end{cases} \quad \left| \begin{array}{c|c} 1 & -2 \\ -1 & \\ & 1 \end{array} \right.$$

$$+ \begin{array}{r} x + y + z = 25 \\ -x + y - z = -5 \end{array}$$

$$2y = 20$$

$$y = 10$$

$$+ \begin{array}{r} -2x - 2y - 2z = -50 \\ x - 2y + 2z = -10 \end{array}$$

$$-x - 4y = -60$$

$$\Rightarrow -x - 4 \cdot 10 = -60$$

$$-x = -20$$

$$x = 20$$

$$(1) \Rightarrow 20 + 10 + z = 25$$

$$z = -5$$

$$\Rightarrow S = \{(20; 10; -5)\}$$

$$S = \{ \underbrace{20; 10; -5} \}$$

3 réponses pour
1 inconnue

$$(x-20)(x-10)(x+5) = 0$$

k)
$$\begin{cases} (1) & x - y - z = 6 \\ (2) & x - 2y - 3z = 10 \\ (3) & 5x + 6y + z = 2 \end{cases} \quad \begin{array}{c} \text{pour éliminer} \\ y \end{array} \left| \begin{array}{l} -2 \quad | \quad 6 \\ 1 \quad | \quad 1 \\ \quad \quad | \quad 1 \end{array} \right.$$

$$\begin{array}{r} -2x + 2y + 2z = -12 \\ + \quad x - 2y - 3z = 10 \\ \hline -x \quad \quad -z = -2 \end{array}$$

$$\begin{array}{r} 6x - 6y - 6z = 36 \\ + \quad 5x + 6y + z = 2 \\ \hline 11x - 5z = 38 \end{array}$$

$$\begin{cases} (4) & -x - z = -2 \quad | -5 \\ (5) & 11x - 5z = 38 \quad | 1 \end{cases} \Rightarrow$$

$$\begin{array}{r} 5x + 5z = 10 \\ 11x - 5z = 38 \\ \hline 16x = 48 \\ x = 3 \end{array}$$

$$\begin{aligned} (4) & \Rightarrow -3 - z = -2 \\ & \quad -1 = z \end{aligned}$$

$$\begin{aligned} (1) & \Rightarrow 3 - y + 1 = 6 \\ & \quad -2 = y \end{aligned}$$

$$\Rightarrow S = \{(3; -2; -1)\}$$