(g)

$$\begin{cases} 4x - 3y = -18 \\ 2y + 5z = -8 \\ x - 2y - 3z = 0 \end{cases} \quad (7)$$

$$\Rightarrow \begin{cases} 4x - 3y + 0 = -18 \\ 0x + 2y + 5z = -8 \\ x - 2y - 3z = 0 \end{cases} \Rightarrow \begin{cases} 4x - 3y + 0 = -18 \\ 0x + 6y + z = -4 \\ 0x + 5y + 12z = -18 \end{cases}$$

1°

$-4 \cdot h_3 = -4x + 8y + 12z = 0$

$h_1 = 4x - 3y + 0 = -18$

$\boxed{5y + 12z = -18}$

2°

$-2 \cdot h_3 = -10y - 24z = 36$

$5 \cdot h_2 = 10y + 25z = -40$

$\boxed{z = -4}$

$\boxed{y = 6}$ $\boxed{x = 0}$

(b)

$$\begin{cases} 4x - y - 3z = 15 \\ 3x - 2y + 5z = -7 \\ 2x + 3y + 4z = 7 \end{cases}$$

$$\Rightarrow \begin{cases} 2x+3y+4z=7 \\ 3x-2x+5z=-7 \\ 4x-y-3z=15 \end{cases} \Rightarrow \begin{cases} 2x+3y+4z=7 \\ -7y-11z=1 \\ 13y+2z=35 \end{cases}$$

$-4x-6y-8z=-14$

$4x-y-3z=15$

$\boxed{-7y-11z=1}$

$3\cdot h_1 = 6x+9y+12z=21$

$-2\cdot h_2 = -6x+4y-10z=14$

$\boxed{13y+2z=35}$

$13\cdot h_2 = -91y-143z=13$

$7\cdot h_3 = 91y+14z=245$

$-129z=258$

$$\begin{cases} 2x+3y+4z=7 \\ -7y-11z=1 \\ 13y+2z=35 \end{cases} \Rightarrow \begin{cases} 2x+3y+4z=7 \\ -7y-11z=1 \\ -129z=258 \end{cases}$$

$\therefore \boxed{z=-2}$

$y=\frac{-21}{-7}$

$\boxed{y=3}$

$2x+9-8=7$

$\boxed{x=3}$

(c)

$$\begin{cases} 2x + 3y - 2z = 2 \\ 3x - 5y + 4z = 5 \\ x - 2y - 7z = -24 \end{cases}$$

$$\Rightarrow \begin{cases} x-2y-7z=-24 \\ 3x-5y+4z=5 \\ 2x+3y-2z=2 \end{cases} \Rightarrow \begin{cases} x-2y-7z=-24 \\ y+25z=77 \\ 7y+12z=50 \end{cases}$$

$-2\cdot h_1 = -2x+4y+14z=48$

$2x+3y-2z=2$

$\boxed{7y+12z=50}$

$-3h_1 =$

$-3x+6y+21z=72$

$3x-5y+4z=5$

$\boxed{y+25z=77}$

$-7\cdot h_3 = -7y-175z=-539$

$7y+12z=50$

$\boxed{-163z=-489}$

$$\begin{cases} x-2y-7z=-24 \\ y+25z=77 \\ 7y+12z=50 \end{cases} \Rightarrow \begin{cases} x-2y-7z=-24 \\ y+25z=77 \\ -163z=-489 \end{cases}$$

$\boxed{z=3}$

$\boxed{y=2}$

$\boxed{x=1}$

(d)

$$\begin{cases} x + 2y + 3z = 10 \\ 3x + 4y + 6z = 23 \\ 3x + 2y + 3z = 10 \end{cases}$$

$$\Rightarrow \begin{cases} x + 2y + 3z = 10 \\ -2y - 3z = -7 \\ -4y - 6z = -20 \end{cases} \Rightarrow \begin{array}{l} x + 2y + 3z = 10 \\ -2y - 3z = -7 \end{array}$$

$-3 \cdot h_3 = -3x - 6y - 9z = 30$

$h_2 = 3x + 4y + 6z = 23$

$-2y - 3z = -7$

$-3 \cdot h_3 = -3x - 6y - 9z = 30$

$h_3 = 3x + 2y + 3z = 10$

$-4y - 6z = -20$

$-2 \cdot h_2 \Rightarrow 4y + 6z = 14$

$-4y - 6z = -20$

$0 = 6$

???

Sistema sem solução

e) $\begin{cases} 5x - 3y - 7z = -5 \\ 4x - y - z = 2 \\ -2x + 4y + 8z = 10 \end{cases} \Rightarrow \begin{cases} 5x - 3y - 7z = -5 \\ -7y - 23z = -30 \\ 14y + 26z = 40 \end{cases}$

$2 \cdot L_1 = 10x - 6y - 14z = -10$

$5 \cdot L_3 = -10x + 20y + 40z = 50$

$\boxed{14y + 26z = 40}$

$4 L_1 = 20x - 12y - 28z = -20$

$-5 \cdot L_2 = -20x + 5y + 5z = -10$

$\boxed{-7y - 23z = -30}$

$\Rightarrow \begin{cases} 5x - 3y - 7z = -5 \\ -7y - 23z = -30 \\ 140z = 140 \end{cases}$

$\boxed{z = 1}$

$\boxed{y = 1}$

$\boxed{x = 1}$

$4 \cdot L_2 = -28y - 92z = -120$

$L_3 = 28y + 182z = 280$

1) $\begin{cases} 3x - 8y - 9z = 14 \\ 7x + 3y + 2z = -12 \\ -8x - 9y + 6z = 11 \end{cases} \Rightarrow \begin{cases} 3x - 8y - 9z = 14 \\ -65y - 69z = 134 \\ -91y - 54z = 145 \end{cases}$

$8 \cdot L_1 \Rightarrow 24x - 64y - 72z = 112$

$3 \cdot L_3 = -24x - 27y + 18z = 33$

nova $L_3 \rightarrow \boxed{-91y - 54z = 145}$

$7 \cdot L_1 = 21x - 56y - 63z = 98$

$-3 \cdot L_2 = -21x - 9y - 6z = 36$

nova $L_2 \rightarrow \boxed{-65y - 69z = 134}$

$\Rightarrow \begin{cases} 3x - 8y - 9z = 14 \\ -65y - 69z = 134 \\ 2769z = -2769 \end{cases}$

$\boxed{z = -1}$ // $\boxed{y = -1}$

$-91 \cdot L_2 = 5915y + 6279z = -12.194$

$65 \cdot L_3 = -5915y - 3510z = 9.425$

nova $L_3 \rightarrow \boxed{2.769z = -2769}$

$3x + 8 + 9 = 14$

$3x = -3$

$\boxed{x = -1}$

h)
$$\begin{cases} 2x - 5y - z = -8 \\ 3x - 2y - 4z = -11 \\ -5x + y + z = -9 \end{cases}$$

$5 \cdot L_1 = 10x - 25y - 5z = -40$

$2 \cdot L_3 = -10x + 2y + 2z = -18$

nova $L_3 \rightarrow \boxed{-23y - 3z = -58}$

$$\begin{cases} 2x - 5y - z = -8 \\ -11y + 5z = -2 \\ -23y - 3z = -58 \end{cases}$$

$3 \cdot L_1 = 6x - 15y - 3z = -24$

$-2 \cdot L_2 = -6x + 4y + 8z = 22$

nova $L_2 \rightarrow \boxed{-11y + 5z = -2}$

$-23 \cdot L_2 = 253y - 115z = 46$

$11 \cdot L_3 = -253y - 33z = -638$

$-148z = -592$

$\boxed{z = 4}$

$\boxed{y = 2}$

$\boxed{x = 3}$