rB1j ⊵ **Exercice** - EXERCICE 1. Résoudre le système :

$$\begin{cases} 2x+4y+3z-t=5 \\ x+2y+4z-3t=10 \\ -x+4y+3z-2t=1 \\ 3x+y-z+2t=0 \end{cases}$$

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$$\begin{array}{l} \ell_1 \leftarrow \ell_1 \\ \ell_2 \leftarrow \ell_3+\ell_4 \\ \ell_3 \leftarrow -\frac{1}{5}\ell_2 \\ \ell_4 \leftarrow \ell_4 \end{array} \quad \begin{cases} x+2y+4z-3t=10 \\ y-6z+6t=-19 \\ z-t=3 \\ -5y-13z+11t=-30 \end{cases}$$

$$\begin{array}{l} \ell_1 \leftarrow \ell_1 \\ \ell_2 \leftarrow \ell_2 \\ \ell_3 \leftarrow \ell_3 \\ \ell_4 \leftarrow \ell_4+5\ell_2 \end{array} \quad \begin{cases} x+2y+4z-3t=10 \\ y-6z+6t=-19 \\ z-t=3 \\ -43z+41t=-125 \end{cases}$$

$$\begin{array}{l} \ell_1 \leftarrow \ell_1 \\ \ell_2 \leftarrow \ell_2 \\ \ell_3 \leftarrow \ell_3 \\ \ell_4 \leftarrow \ell_4+43\ell_3 \end{array} \quad \begin{cases} x+2y+4z-3t=10 \\ y-6z+6t=-19 \\ z-t=3 \\ -2t=4 \end{cases}$$

$$\mathcal{S}=\{(2,-1,1,-2)\}$$

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