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

$$\left(\begin{array}{cccc} 3 & 4 & -1 & 5 \\ 1 & 2 & -1 & 2 \\ 2 & 3 & -2 & 3 \end{array}\right)$$

Matrice augmentée du système

$$\left(\begin{array}{cccc} 1 & 2 & -1 & 2 \\ 2 & 3 & -2 & 3 \\ 3 & 4 & -1 & 5 \end{array}\right)$$

$L_2 \leftarrow L_2 - 2L_1$

$L_3 \leftarrow L_3 - 3L_1$

$$\left(\begin{array}{cccc} 1 & 2 & -1 & 2 \\ 0 & -1 & 0 & -1 \\ 0 & -2 & 2 & -1 \end{array}\right)$$

$L_2 \leftarrow (-1) \cdot L_2$

$$\left(\begin{array}{cccc} 1 & 2 & -1 & 2 \\ 0 & 1 & 0 & 1 \\ 0 & -2 & 2 & -1 \end{array}\right)$$

$L_3 \leftarrow L_3 + 2L_2$

$$\begin{pmatrix} 1 & 2 & -1 & 2 \\ 0 & 1 & 0 & 1 \\ 0 & 0 & 2 & 1 \end{pmatrix}$$

$$\begin{cases} x + 2y - z = 2 \\ y = 1 \\ 2z = 1 \end{cases} \Big| z = \frac{1}{2}$$

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

$$\boxed{\begin{cases} x = 1/2 \\ y = 1 \\ z = 1/2 \end{cases}}$$

$$S = \{(0{,}5;\ 1;\ 0{,}5)\}$$

$$4{,}75 = \frac{x}{48} \cdot 5 + 1$$