

### Exercice 2

$$\text{Solt } (S_m) : \begin{cases} x + y + mz = m \\ x + my - z = 1 \\ x + y - z = 1 \end{cases}$$

$$\Leftrightarrow \begin{cases} x + y - z = 1 & L_1 \Leftrightarrow L_3 \\ x + my - z = 1 \\ x + y + mz = m \end{cases} \quad \checkmark$$

$$\Leftrightarrow \begin{cases} x + y - z = 1 \\ my - y = 0 \\ mz + z = m - 1 \end{cases} \quad \text{Opérations?}$$

$$\Leftrightarrow \begin{cases} x + y - z = 1 \\ m = 1 \\ 2z = 0 \end{cases} \quad \text{OU } \dots$$

$$\Leftrightarrow \begin{cases} x = 1 - y \\ m = 1 \\ z = 0 \end{cases}$$

Si  $m = 1$

$$S = \{(1 - y; y; 0) \mid y \in \mathbb{R}\}$$

Et sinon?