

A forma reticida denovo:

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$$\begin{bmatrix} 1 & 2 & 1 \\ 2 & -1 & 5 \end{bmatrix} \begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \end{bmatrix}$$

$\downarrow$  1<sup>a</sup>  
 $2^a - 2 \cdot 1^a$

$$\begin{bmatrix} 1 & 2 & 1 \\ 0 & -3 & 3 \end{bmatrix} \begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \end{bmatrix}$$

variavel livre e' z

$$\begin{aligned} x + 2y + z = 0 & \Rightarrow x + 3z = 0, \quad \boxed{x = -3z} \\ -3y + 3z = 0 & \Rightarrow \boxed{y = z} \\ & \quad \boxed{z = z} \end{aligned}$$

$$\begin{bmatrix} 1 & 0 & 3 \\ 0 & 1 & -1 \\ 0 & 0 & 1 \end{bmatrix} \begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \\ 0 \end{bmatrix}$$

$\boxed{\begin{aligned} x &= -3z \\ y &= z \\ z &= z \end{aligned}}$

(uma terceira sistema equivalente)