Sistema de ecuaciones lineales 3x3 Bit Planet

Solución Metodo Sustitución

$$\begin{cases} 2x + 3y - 4z = -8 \quad (3) \\ 13y - 8z = 2 \quad (2) \\ 3z = 15 \quad (1) \end{cases}$$

→ Sistema triangular

(1) $3z = 15$

$$z = \frac{15}{3} = 5$$

(2) $13y - 8z = 2$

$13y - 8(5) = 2$

$13y - 40 = 2$

$13y = 2 + 40$

$13y = 42$

$$y = \frac{42}{13}$$

(3) $2x + 3y - 4z = -8$

$$2x + 3\left(\frac{42}{13}\right) - 4(5) = -8$$

$$2x + \frac{126}{13} - 20 = -8$$

$$2x + \frac{126}{13} = -8 + 20$$

$$2x + \frac{126}{13} = 12$$

$$2x = 12 - \frac{126}{13}$$

$$2x = \frac{30}{13}$$

$$x = \frac{\frac{30}{13}}{2}$$

$$x = \frac{15}{13}$$