

1. minitest

Matematika M2 (b), LS 2025/26

23. 2. 2025

Řešte soustavu lineárních rovnic

$$3x + 2y - 2z = -1$$

$$5x + 2y + 3z = 7$$

$$2x + 3y - 5z = -3$$

$$\left(\begin{array}{ccc|c} 3 & 2 & -2 & -1 \\ 5 & 2 & 3 & 7 \\ 2 & 3 & -5 & -3 \end{array} \right) \sim \begin{array}{l} 5 \cdot \text{I} - 3 \cdot \text{II} \\ 2 \cdot \text{I} - 3 \cdot \text{III} \end{array} \left(\begin{array}{ccc|c} 3 & 2 & -2 & -1 \\ 0 & 4 & -19 & -26 \\ 0 & -5 & 11 & 7 \end{array} \right) \sim$$

$$\sim \begin{array}{l} 5 \cdot \text{II} + 4 \cdot \text{III} \end{array} \left(\begin{array}{ccc|c} 3 & 2 & -2 & -1 \\ 0 & 4 & -19 & -26 \\ 0 & 0 & -51 & -102 \end{array} \right) \Rightarrow -51z = -102$$

$$\boxed{z = 2}$$

$$4y - 19 \cdot 2 = -26$$

$$4y = 12$$

$$\boxed{y = 3}$$

$$3x + 2 \cdot 3 - 2 \cdot 2 = -1$$

$$3x = -3$$

$$\boxed{x = -1}$$