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# 1. minitest - varianta B

Soustava lineárních rovnic

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5/5

Pomocí Gaussovy eliminace řešte soustavu lineárních rovnic

$$x + 3y - 2z = 4$$

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

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

$$\begin{pmatrix} 1 & 3 & -2 & | & 4 \\ 3 & -5 & -1 & | & 3 \\ 2 & -5 & 1 & | & 2 \end{pmatrix} \xrightarrow{(-3)I+II} \begin{pmatrix} 1 & 3 & -2 & | & 4 \\ 0 & -14 & 5 & | & -9 \\ 2 & -5 & 1 & | & 2 \end{pmatrix} \xrightarrow{(-2)I+III} \begin{pmatrix} 1 & 3 & -2 & | & 4 \\ 0 & -14 & 5 & | & -9 \\ 0 & -11 & 5 & | & -6 \end{pmatrix} \xrightarrow{(-11)II+14III} \begin{pmatrix} 1 & 3 & -2 & | & 4 \\ 0 & -14 & 5 & | & -9 \\ 0 & 0 & 15 & | & 15 \end{pmatrix}$$

$15z = 15$   
 $z = 1$

$$\begin{aligned} -14y + 5z &= -9 \\ -14y + 5 &= -9 \\ -14y &= -14 \\ y &= 1 \end{aligned}$$
$$\begin{aligned} x + 3y - 2z &= 4 \\ x + 3 - 2 &= 4 \\ x &= 3 \end{aligned}$$

$$\{ [3 \ 1 \ 1 \ 1] \} \checkmark$$