

Ukázka výpočtu inverzní matice

$$\begin{aligned}(\mathbf{A}|\mathbf{I}_n) &= \left(\begin{array}{ccc|ccc} 1 & 3 & 2 & 1 & 0 & 0 \\ 3 & 4 & 0 & 0 & 1 & 0 \\ 0 & 1 & 1 & 0 & 0 & 1 \end{array} \right) \sim \left(\begin{array}{ccc|ccc} 1 & 3 & 2 & 1 & 0 & 0 \\ 0 & 1 & 1 & 0 & 0 & 1 \\ 0 & 5 & 6 & 3 & -1 & 0 \end{array} \right) \sim \\ &\sim \left(\begin{array}{ccc|ccc} 1 & 0 & -1 & 1 & 0 & -3 \\ 0 & 1 & 1 & 0 & 0 & 1 \\ 0 & 0 & 1 & 3 & -1 & -5 \end{array} \right) \sim \left(\begin{array}{ccc|ccc} 1 & 0 & 0 & 4 & -1 & -8 \\ 0 & 1 & 0 & -3 & 1 & 6 \\ 0 & 0 & 1 & 3 & -1 & -5 \end{array} \right) = (\mathbf{I}_n|\mathbf{A}^{-1})\end{aligned}$$

Zkouška:

	$\mathbf{A}\mathbf{A}^{-1}$	$\begin{array}{ccc} 4 & -1 & -8 \\ -3 & 1 & 6 \\ 3 & -1 & -5 \end{array}$	$\mathbf{A}^{-1}\mathbf{A}$	$\begin{array}{ccc} 1 & 3 & 2 \\ 3 & 4 & 0 \\ 0 & 1 & 1 \end{array}$
	$\begin{array}{ccc} 1 & 3 & 2 \\ 3 & 4 & 0 \\ 0 & 1 & 1 \end{array}$	$\begin{array}{ccc} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{array}$	$\begin{array}{ccc} 4 & -1 & -8 \\ -3 & 1 & 6 \\ 3 & -1 & -5 \end{array}$	$\begin{array}{ccc} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{array}$