

2. minitest
 Matematika M2 (b), LS 2025/26
 2. 3. 2026

Určete hodnost matice

$$A = \begin{pmatrix} 2 & 3 & 1 & 1 & 2 \\ 3 & 4 & 0 & 1 & 1 \\ 1 & 1 & -1 & 0 & -1 \\ 5 & 7 & 1 & 2 & 3 \\ 4 & 6 & 2 & 2 & 4 \end{pmatrix}$$

$$\sim \begin{pmatrix} 1 & 1 & -1 & 0 & -1 \\ 3 & 4 & 0 & 1 & 1 \\ 2 & 3 & 1 & 1 & 2 \\ 5 & 7 & 1 & 2 & 3 \\ 4 & 6 & 2 & 2 & 4 \end{pmatrix}$$

$$\begin{array}{l} -3 \cdot \text{I} + \text{II} \\ -2 \cdot \text{I} + \text{III} \\ -5 \cdot \text{I} + \text{IV} \\ -2 \cdot \text{III} + \text{V} \end{array} \sim \begin{pmatrix} 1 & 1 & -1 & 0 & -1 \\ 0 & 1 & 3 & 1 & 4 \\ 0 & 1 & 3 & 1 & 4 \\ 0 & 2 & 6 & 2 & 8 \\ 0 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{array}{l} -\text{II} + \text{III} \\ -2\text{II} + \text{IV} \end{array} \sim \begin{pmatrix} 1 & 1 & -1 & 0 & -1 \\ 0 & 1 & 3 & 1 & 4 \\ \hline 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$\text{rk}(A) = 2$$