

**Linear algebra 1 (winter 2021/2022):**  
**HW assignment (2)**

**Problem 1.** Find a system of linear equations with four variables with the solution set

$$\left\{ \begin{pmatrix} 1 \\ 0 \\ 1 \\ 0 \end{pmatrix} + x_2 \begin{pmatrix} -2 \\ 1 \\ 0 \\ 0 \end{pmatrix} + x_4 \begin{pmatrix} -3 \\ 0 \\ 2 \\ 1 \end{pmatrix}; x_2, x_4 \in \mathbb{R} \right\} \subseteq \mathbb{R}^4.$$

(5 points)