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$E: \vec{x} = \begin{pmatrix} 1 \\ 5 \\ 9 \end{pmatrix} + r \begin{pmatrix} 2 \\ 3 \\ -1 \end{pmatrix} + s \begin{pmatrix} -2 \\ 3 \\ 2 \end{pmatrix}$

$E: \vec{x} = \begin{pmatrix} 1 \\ 5 \\ 3 \end{pmatrix} + r \begin{pmatrix} 3 \\ 5 \\ 1 \end{pmatrix} + s \begin{pmatrix} 3 \\ 1 \\ 5 \end{pmatrix}$ $E: 2x_1 + 3x_2 - x_3 = 4.$

$E: \left[\vec{x} - \begin{pmatrix} 6 \\ -9 \\ 3 \end{pmatrix} \right] \cdot \begin{pmatrix} 0 \\ 3 \\ 2 \end{pmatrix} = 0.$ $E: 4x_1 + 6x_2 - 2x_3 = 8.$

$E: \left[\vec{x} - \begin{pmatrix} 0 \\ 3 \\ 2 \end{pmatrix} \right] \cdot \begin{pmatrix} 6 \\ -9 \\ 3 \end{pmatrix} = 0.$ $E: \vec{x} = \begin{pmatrix} 3 \\ 2 \\ 1 \end{pmatrix} + r \begin{pmatrix} 0 \\ 1 \\ 3 \end{pmatrix} + s \begin{pmatrix} 2 \\ 0 \\ 4 \end{pmatrix}$

$E: 14x_1 - 21x_2 + 7x_3 = -56.$ $E: \vec{x} = \begin{pmatrix} 3 \\ 2 \\ 1 \end{pmatrix} + r \begin{pmatrix} 0 \\ 2 \\ 6 \end{pmatrix} + s \begin{pmatrix} 2 \\ 0 \\ 4 \end{pmatrix}$

$E: 14x_1 + 21x_2 - 7x_3 = 56.$ $E: \vec{x} = \begin{pmatrix} 3 \\ 2 \\ 4 \end{pmatrix} + r \begin{pmatrix} 0 \\ 1 \\ 3 \end{pmatrix} + s \begin{pmatrix} 2 \\ 0 \\ 4 \end{pmatrix}$

$E: -2x_1 - 3x_2 + x_3 = -8.$

$r, s \in \mathbb{R}$

Mithilfe dieser **Tricks** kann ich schnell die Lage zweier Ebenen ablesen:

Trick 1	E₁: <input type="checkbox"/> PF <input type="checkbox"/> KF <input type="checkbox"/> NF	E₂: <input type="checkbox"/> PF <input type="checkbox"/> KF <input type="checkbox"/> NF	
Trick 2	E₁: <input type="checkbox"/> PF <input type="checkbox"/> KF <input type="checkbox"/> NF	E₂: <input type="checkbox"/> PF <input type="checkbox"/> KF <input type="checkbox"/> NF	
Trick 3	E₁: <input type="checkbox"/> PF <input type="checkbox"/> KF <input type="checkbox"/> NF	E₂: <input type="checkbox"/> PF <input type="checkbox"/> KF <input type="checkbox"/> NF	
Trick 4	E₁: <input type="checkbox"/> PF <input type="checkbox"/> KF <input type="checkbox"/> NF	E₂: <input type="checkbox"/> PF <input type="checkbox"/> KF <input type="checkbox"/> NF	
Trick 5	E₁: <input type="checkbox"/> PF <input type="checkbox"/> KF <input type="checkbox"/> NF	E₂: <input type="checkbox"/> PF <input type="checkbox"/> KF <input type="checkbox"/> NF	
Trick 6	E₁: <input type="checkbox"/> PF <input type="checkbox"/> KF <input type="checkbox"/> NF	E₂: <input type="checkbox"/> PF <input type="checkbox"/> KF <input type="checkbox"/> NF	
Trick 7	E₁: <input type="checkbox"/> PF <input type="checkbox"/> KF <input type="checkbox"/> NF	E₂: <input type="checkbox"/> PF <input type="checkbox"/> KF <input type="checkbox"/> NF	