

## 1 Geradengleichung

$$g_1: \vec{x} = \begin{pmatrix} 1 \\ -2 \\ 0 \end{pmatrix} + \lambda_1 \begin{pmatrix} t \\ 1 \\ 2 \end{pmatrix}$$

$$g_2: \vec{x} = \begin{pmatrix} 2 \\ -1 \\ 5 \end{pmatrix} + \lambda_1 \begin{pmatrix} s \\ 6 \\ 8 \end{pmatrix}$$

$$g_3: \vec{x} = \begin{pmatrix} 123 \\ 234 \\ 345 \end{pmatrix} + \lambda_1 \begin{pmatrix} 456 \\ 567 \\ 678 \end{pmatrix}$$

$$\left. \begin{array}{rrcrcl} 3x_1 & + & 2x_2 & - & x_3 & = & 4 \\ \frac{2}{3}x_1 & + & x_2 & - & \frac{1}{3}x_3 & = & \frac{4}{3} \\ x_1 & + & x_2 & - & 2x_3 & = & 0 \end{array} \right\} \Rightarrow \vec{x} = \begin{pmatrix} 1 \\ 1 \\ 1 \end{pmatrix}$$