

8 Lineare Gleichungssysteme

Bestimme ob die folgenden Gleichungssysteme keine, eine oder unendlich viele Lösungen besitzen.

Knicke zuerst den Zettel an der Linie um, ohne Dir die Lösungen anzuschauen. Löse alle Aufgaben und vergleiche erst dann Deine Ergebnisse.

$$\left| \begin{array}{l} 2x = -5y - 5 \\ 2x = 4y + 4 \end{array} \right| \Rightarrow \left| \begin{array}{l} = \\ = \end{array} \right| \quad L = \{0 | -1\}$$

$$\left| \begin{array}{l} 7x = 7y + 32 \\ 9x - 9y = 72 \end{array} \right| \Rightarrow \left| \begin{array}{l} = \\ = \end{array} \right| \quad L = \{\}$$

$$\left| \begin{array}{l} 9y - 27 = -9x \\ 7x + 3y = 37 \end{array} \right| \Rightarrow \left| \begin{array}{l} = \\ = \end{array} \right| \quad L = \{7 | -4\}$$

$$\left| \begin{array}{l} -6x - 3y = -114 \\ -6y + 228 = 12x \end{array} \right| \Rightarrow \left| \begin{array}{l} = \\ = \end{array} \right| \quad L = \{(x|y) | y = -2x + 38\}$$

$$\left| \begin{array}{l} 8x = -2y - 27 \\ 4x + 1y = 48 \end{array} \right| \Rightarrow \left| \begin{array}{l} = \\ = \end{array} \right| \quad L = \{\}$$

$$\left| \begin{array}{l} 4x - 2y = 58 \\ -8x + 4y = -116 \end{array} \right| \Rightarrow \left| \begin{array}{l} = \\ = \end{array} \right| \quad L = \{(x|y) | y = 2x - 29\}$$

$$\left| \begin{array}{l} x = 3y + 26 \\ 5x - 6y = 85 \end{array} \right| \Rightarrow \left| \begin{array}{l} = \\ = \end{array} \right| \quad L = \{11 | -5\}$$

$$\left| \begin{array}{l} 6 = 5x + 7y \\ 3x - 6 = -3y \end{array} \right| \Rightarrow \left| \begin{array}{l} = \\ = \end{array} \right| \quad L = \{4 | -2\}$$

$$\left| \begin{array}{l} -74 = 4x + 6y \\ -7x - 17 = -2y \end{array} \right| \Rightarrow \left| \begin{array}{l} = \\ = \end{array} \right| \quad L = \{-5 | -9\}$$

$$\left| \begin{array}{l} -5x - 2y = -20 \\ 10x - 40 = -4y \end{array} \right| \Rightarrow \left| \begin{array}{l} = \\ = \end{array} \right| \quad L = \{(x|y) | y = -2,5x + 10\}$$