

Lineare Gleichungssysteme lösen

Aufgabe 1:

Löse das Gleichungssystem

- 1)
$$\begin{array}{l} y = -2x - 1 \\ y = 4x + 5 \end{array}$$
- 2)
$$\begin{array}{l} 12x + 3y = 33 \\ 3x - 3y = 12 \end{array}$$
- 3)
$$\begin{array}{l} y = -4x - 7 \\ y = 4x + 17 \end{array}$$
- 4)
$$\begin{array}{l} y = -5x - 3 \\ y = 2x + 4 \end{array}$$
- 5)
$$\begin{array}{l} -4x + 4y = -16 \\ -20x - 4y = -104 \end{array}$$
- 6)
$$\begin{array}{l} 15x - 5y = 60 \\ -5x + 5y = -30 \end{array}$$
- 7)
$$\begin{array}{l} 2y - 2x = -12 \\ y = -4x + 14 \end{array}$$
- 8)
$$\begin{array}{l} y = -1x + 6 \\ y = 5x - 6 \end{array}$$
- 9)
$$\begin{array}{l} 4y + 8x = 52 \\ y = 4x - 11 \end{array}$$
- 10)
$$\begin{array}{l} -8x + 4y = 52 \\ -4x - 4y = 8 \end{array}$$
- 11)
$$\begin{array}{l} 5y + 15x = 65 \\ y = 5x - 19 \end{array}$$
- 12)
$$\begin{array}{l} y = 2x + 5 \\ y = 5x + 20 \end{array}$$
- 13)
$$\begin{array}{l} -4x + 2y = 2 \\ 10x - 2y = -14 \end{array}$$
- 14)
$$\begin{array}{l} -5y - 10x = 65 \\ y = 2x + 7 \end{array}$$
- 15)
$$\begin{array}{l} y = 4x - 25 \\ y = 1x - 10 \end{array}$$
- 16)
$$\begin{array}{l} 15x - 3y = 33 \\ -6x + 3y = -6 \end{array}$$
- 17)
$$\begin{array}{l} y = -1x + 2 \\ y = 4x - 23 \end{array}$$
- 18)
$$\begin{array}{l} -2x + 2y = -6 \\ -10x - 2y = 30 \end{array}$$
- 19)
$$\begin{array}{l} 3y - 12x = 45 \\ y = -3x - 20 \end{array}$$
- 20)
$$\begin{array}{l} y = 1x - 6 \\ y = -5x + 12 \end{array}$$

Lösung:

- 1) $L = \{ (-1|1) \}$
- 2) $L = \{ (3|-1) \}$
- 3) $L = \{ (-3|5) \}$
- 4) $L = \{ (-1|2) \}$
- 5) $L = \{ (5|1) \}$
- 6) $L = \{ (3|-3) \}$
- 7) $L = \{ (4|-2) \}$
- 8) $L = \{ (2|4) \}$
- 9) $L = \{ (4|5) \}$
- 10) $L = \{ (-5|3) \}$
- 11) $L = \{ (4|1) \}$
- 12) $L = \{ (-5|-5) \}$
- 13) $L = \{ (-2|-3) \}$
- 14) $L = \{ (-5|-3) \}$
- 15) $L = \{ (5|-5) \}$
- 16) $L = \{ (3|4) \}$
- 17) $L = \{ (5|-3) \}$
- 18) $L = \{ (-2|-5) \}$
- 19) $L = \{ (-5|-5) \}$
- 20) $L = \{ (3|-3) \}$