

Lineare Gleichungssysteme Aufgabe 31

$$10(3x + 5) = 2(16 - 3y) \quad (1)$$

$$6(1 - 7x) = 5(4y - 10) \quad (2)$$

$$\begin{array}{l} 30x + 50 = 32 - 6y \quad | +6y \\ 6 - 42x = 20y - 50 \quad | +42x \end{array}$$

$$\begin{array}{l} 30x + 6y + 50 = 32 \quad | -50 \\ 6 = 42x + 20y - 50 \quad | +50 \end{array}$$

$$\begin{array}{l} \mathbf{30x + 6y = -18} \\ \mathbf{42x + 20y = 56} \end{array}$$

$$\begin{array}{l} 30x + 6y = -18 \quad | *(-10) \\ 42x + 20y = 56 \quad | *3 \end{array}$$

$$\begin{array}{r} -300x - 60y = 180 \\ \underline{126x + 60y = 168} \\ -174x \quad \quad = 348 \quad | :(-174) \end{array}$$

$$\mathbf{x = -2}$$

x in (1) eingesetzt

$$30 * (-2) + 6y = -18 \quad | +60$$

$$6y = 42 \quad | :6$$

$$\mathbf{y = 7}$$