

$$\begin{array}{r}
 \text{1 a) (1) } 2x + y = 5 \\
 \text{(2) } 3x - y = 5 \\
 \hline
 \text{(1) + (2) } 5x = 10 \quad | :5 \\
 x = 2
 \end{array}$$

$x = 2$ in (1) einsetzen:

$$\begin{array}{r}
 2 \cdot 2 + y = 5 \\
 4 + y = 5 \quad | -4 \\
 y = 1
 \end{array}$$

Lösung: (2; 1)

$$\begin{array}{r}
 \text{b) (1) } x + 3y = 9 \\
 \text{(2) } -x + y = 3 \\
 \hline
 \text{(1) + (2) } 4y = 12 \quad | :4 \\
 y = 3
 \end{array}$$

$y = 3$ in (1) einsetzen:

$$\begin{array}{r}
 x + 3 \cdot 3 = 9 \\
 x + 9 = 9 \quad | -9 \\
 x = 0
 \end{array}$$

Lösung: (0; 3)

2 In den Lösungen sind die Gleichungen bereits geordnet dargestellt.

$$\begin{array}{r}
 \text{a) (1) } 5x + 2y = 9 \\
 \text{(2') } 7x - 2y = 3 \\
 \hline
 \text{(1) + (2')} 12x = 12 \quad | :12 \\
 x = 1
 \end{array}$$

$x = 1$ in (1) einsetzen:

$$\begin{array}{r}
 5 + 2y = 9 \quad | -5 \\
 2y = 4 \quad | :2 \\
 y = 2
 \end{array}$$

Lösung: (1; 2)

$$\begin{array}{r}
 \text{c) (1) } 3x - 7y = 5 \\
 \text{(2') } -x + 7y = 3 \\
 \hline
 \text{(1) + (2')} 2x = 8 \quad | :2 \\
 x = 4
 \end{array}$$

$x = 4$ in (2') einsetzen:

$$\begin{array}{r}
 -4 + 7y = 3 \quad | +4 \\
 7y = 7 \quad | :7 \\
 y = 1
 \end{array}$$

Lösung: (4; 1)

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$$\begin{array}{r}
 \text{3 a) (1) } 2x + 4y = 40 \\
 \text{(2) } 3x - 2y = 4 \quad | \cdot 2 \\
 \hline
 \text{(1) } 2x + 4y = 40 \\
 \text{(2') } 6x - 4y = 8 \\
 \hline
 \text{(1) + (2')} 8x = 48 \quad | :8 \\
 x = 6
 \end{array}$$

$x = 6$ in (1) einsetzen:

$$\begin{array}{r}
 2 \cdot 6 + 4y = 40 \\
 12 + 4y = 40 \quad | -12 \\
 4y = 28 \quad | :4 \\
 y = 7
 \end{array}$$

Lösung: (6; 7)

$$\begin{array}{r}
 \text{c) (1) } 3x - 4y = 13 \quad | \cdot 2 \\
 \text{(2) } -2x + 3y = -8 \quad | \cdot 3 \\
 \hline
 \text{(1') } 6x - 8y = 26 \\
 \text{(2') } -6x + 9y = -24 \\
 \hline
 \text{(1') + (2')} y = 2
 \end{array}$$

$y = 2$ in (1) einsetzen:

$$\begin{array}{r}
 3x - 4 \cdot 2 = 13 \\
 3x - 8 = 13 \quad | +8 \\
 3x = 21 \quad | :3 \\
 x = 7
 \end{array}$$

Lösung: (7; 2)