

51.

$$2) \quad 2x - 7 - 3x = 5(3 - 2x) - 4 \quad | +7$$

$$-1x = 15 - 10x - 4 + 7 \quad | +10x$$

$$9x = 15 - 4 + 7$$

$$9x = 18 \quad | :9$$

$$x = 2$$

$L \{2\}$

$$b) \quad 1,3(0,4x + 3) = 2,2 - (x - 1,7)$$

$$0,52x + 3,9 = 2,2 - x + 1,7 \quad | -3,9$$

$$0,52x = 2,2 - x + 1,7 - 3,9 \quad | +x$$

$$1,52x = 0 \quad | :1,52$$

$L \{0\}$

$$c) \quad 1\frac{1}{2}x - 2\frac{2}{5} + \frac{2}{3}x = 2x - 3\frac{3}{4}$$

$$1\frac{3}{6}x + \frac{4}{6}x - 2\frac{2}{5} = 2x - 3\frac{3}{4}$$

$$2\frac{1}{6}x - 2\frac{2}{5} = 2x - 3\frac{3}{4} \quad | -2x + 2\frac{2}{5}$$

$$\frac{1}{6}x = 2\frac{2}{5} - 3\frac{3}{4}$$

$$\frac{1}{6}x = 2\frac{8}{20} - 3\frac{15}{20}$$

$$\frac{1}{6}x = -1\frac{7}{20}$$

$$\frac{1}{6}x = -\frac{27}{20} \quad | \cdot 6$$

$$x = \frac{-27 \cdot 6}{20}$$

$$x = -\frac{81}{10}$$

$$x = -8\frac{1}{10}$$

$L \{-8\frac{1}{10}\}$

$$52 \text{ a) } x^2 - 7x + 6 = 0$$

$$x_{1/2} = -\frac{7}{2} \pm \sqrt{\left(\frac{7}{2}\right)^2 - 6}$$

$$x_{1/2} = -\frac{7}{2} \pm \sqrt{6,25}$$

$$x_{1/2} = -3,5 \pm 2,5$$

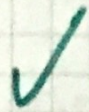
$$x_1 = -3,5 + 2,5$$

$$x_1 = -1$$

$$x_2 = -3,5 - 2,5$$

$$x_2 = 6$$

$$L \{ -1, 6 \}$$



b) ~~$0,4x^2 - 2,4x = 0$~~ ~~$0,4x^2 - 2,4x = 0 \quad | :0,4$~~
 ~~$0,4x(x - 6) = 0$~~ ~~$0,4x^2$~~
 ~~$x_1 = 0$~~ ~~$x_2 = 6$~~

~~$0,4x^2 - 2,4x = 0$~~ ~~$0,4x(x - 6) = 0$~~ ~~Ausklammern $0,4x$~~

$$0,4x^2 - 2,4x = 0 \quad | :0,4$$

$$x^2 - 6x = 0$$

$$x_{1/2} = -\frac{6}{2} \pm \sqrt{\left(\frac{6}{2}\right)^2 - 0}$$

$$x_{1/2} = -3 \pm \sqrt{9}$$

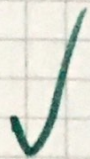
$$x_1 = -3 + 3$$

$$x_1 = 0$$

$$x_2 = -3 - 3$$

$$x_2 = -6$$

$$L \{ 0, -6 \}$$



$$c) 0,7x^2 - 4,9x + 8,4 = 0 \quad | :0,7$$

$$x^2 - 7x + 12 = 0$$

$$x_{1/2} = \frac{7}{2} \pm \sqrt{\left(\frac{7}{2}\right)^2 - 12}$$

$$x_{1/2} = 3,5 \pm 0,5$$

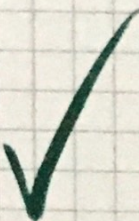
$$x_1 = 3,5 + 0,5$$

$$x_2 = 3,5 - 0,5$$

$$x_1 = 4$$

$$x_2 = 3$$

$$L \{ 3, 4 \}$$



$$d) \frac{1}{3}x^2 + \frac{2}{7}x + 2 = 0$$

~~$$x = \frac{-\frac{2}{7} \pm \sqrt{\left(\frac{2}{7}\right)^2 - 4 \cdot \frac{1}{3} \cdot 2}}{2 \cdot \frac{1}{3}}$$~~

?

53. a)
$$\begin{array}{l} \text{I} \quad 2x - 3y = 5 \quad | \cdot 2 \\ \text{II} \quad 5x + 6y = -1 \end{array}$$

$$\begin{array}{l} \text{I} \quad 4x - 6y = 10 \\ \text{II} \quad 5x + 6y = -1 \end{array}$$

$$\text{I} + \text{II} \quad 9x = 9 \quad | : 9$$

$$x = 1$$

$$2 \cdot 1 - 3y = 5 \quad | -2$$

$$-3y = 3 \quad | : -3$$

$$y = -1$$

$$L \{1 | -1\}$$

b)
$$\begin{array}{l} \text{I} \quad -5x + 2y = 17 \\ \text{II} \quad \quad \quad y = 1,5 - x \end{array}$$

$$-5x + 2 \cdot (1,5 - x) = 17$$

$$-5x + 3 - 2x = 17$$

$$-7x + 3 = 17 \quad | -3$$

$$-7x = 14 \quad | : -7$$

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

$$y = 1,5 - (-2)$$

$$y = \underline{\underline{3,5}}$$

$$L \{3,5 | -2\}$$

$$\begin{array}{r}
 \text{c) I} \quad x = 2y + 3 \\
 \text{II} \quad x = 4 - y \\
 \hline
 2y + 3 = 4 - y \quad | +y \quad -3 \\
 3y = 1 \quad | :3
 \end{array}$$

$$y = \frac{1}{3}$$

$$x = 4 - \frac{1}{3}$$

$$x = 3,\bar{6} \quad \{ (0,\bar{3} | 3,\bar{6}) \}$$



$$\begin{array}{r}
 \text{d) I} \quad -x + 3y = 6 \quad | \cdot 2 \\
 \text{II} \quad 2x - 6y = 0 \\
 \hline
 \end{array}$$

$$\text{I} \quad -2x + 6y = 12$$

$$\text{II} \quad +2x - 6y = 0$$

$$\text{I} + \text{II} \quad 0 = 12$$

Gelöst nicht! $\{ \}$



$$\begin{array}{r}
 \text{e) I} \quad 1,2x + 3,6y = 4,8 \\
 \text{II} \quad 2,3x + 6,9y = 9,2 \\
 \hline
 \text{I}
 \end{array}$$

