

① Bestimme zu den folgenden Gleichungen die Lösungsmenge.

$$2x - 3 = 55$$

$$x - 45 = 123$$

$$15x + 4353 = 543$$

$$x + 15 = 23$$

$$3x - 75 = 762$$

$$12x + 34 = 10x + 88$$

$$33x - 61 = 11x - 567$$

Lösungen

$$\mathbb{L} = \{168\} \quad \mathbb{L} = \{279\} \quad \mathbb{L} = \{9\} \quad \mathbb{L} = \{-27\} \quad \mathbb{L} = \{27\} \quad \mathbb{L} = \{41\}$$

$$\mathbb{L} = \{28\} \quad \mathbb{L} = \{280\} \quad \mathbb{L} = \{8\} \quad \mathbb{L} = \{-29\} \quad \mathbb{L} = \{\} \quad \mathbb{L} = \{179\}$$

$$\mathbb{L} = \{19\} \quad \mathbb{L} = \{254\} \quad \mathbb{L} = \{23\} \quad \mathbb{L} = \{-23\} \quad \mathbb{L} = \{0\} \quad \mathbb{L} = \{29\}$$

② Bestimme zu den folgenden Gleichungen die Lösungsmenge.

$$7x + 15 - x + 25 = 3x + 23 + 5x - 55$$

$$12x - 34 + 9x = -10x + 86 + 11x$$

$$12x - 45 + 22x - 123 = 42x + 104$$

$$15x + 4352 - 3x + 125 = 7x - 543 + 4x$$

$$31x - 56 + 8x - 13 = 25x + 99 - 3x + 2$$

$$22x - 22 + 22x - 222 = 22x + 20$$

Lösungen

$$\mathbb{L} = \{4\} \quad \mathbb{L} = \{11\} \quad \mathbb{L} = \{10\} \quad \mathbb{L} = \{36\} \quad \mathbb{L} = \{6\} \quad \mathbb{L} = \{4669\}$$

$$\mathbb{L} = \{5\} \quad \mathbb{L} = \{12\} \quad \mathbb{L} = \{20\} \quad \mathbb{L} = \{35\} \quad \mathbb{L} = \{9\} \quad \mathbb{L} = \{-4770\}$$

$$\mathbb{L} = \{7\} \quad \mathbb{L} = \{13\} \quad \mathbb{L} = \{30\} \quad \mathbb{L} = \{34\} \quad \mathbb{L} = \{19\} \quad \mathbb{L} = \{-5020\}$$

③ Bestimme zu den folgenden Gleichungen die Lösungsmenge.

$$7 \cdot (x + 3) - 5x = 3 \cdot (x - 11)$$

$$11 \cdot (11x - 11) + 11x = 11 \cdot (11x - 11) - 11x$$

$$6 \cdot (7x + 23) = 9 \cdot (76 - 21x) + 147$$

$$13 \cdot (13x - 13) + 13x = 13 \cdot (13x - 13) - 13x$$

$$15 \cdot (3x - 2) + 13x = 8 \cdot (4x - 11) - 3x$$

$$25 \cdot (13x - 12) - 7x = 3 \cdot (7x - 200) - 3x$$

Lösungen

$$\mathbb{L} = \{1\} \quad \mathbb{L} = \{11\} \quad \mathbb{L} = \{45\} \quad \mathbb{L} = \{3\} \quad \mathbb{L} = \{-2\} \quad \mathbb{L} = \{-21\}$$

$$\mathbb{L} = \{5\} \quad \mathbb{L} = \{0\} \quad \mathbb{L} = \{56\} \quad \mathbb{L} = \{13\} \quad \mathbb{L} = \{-4\} \quad \mathbb{L} = \{-9\}$$

$$\mathbb{L} = \{6\} \quad \mathbb{L} = \{10\} \quad \mathbb{L} = \{54\} \quad \mathbb{L} = \{31\} \quad \mathbb{L} = \{4\} \quad \mathbb{L} = \{-3\}$$