1

$$0 = 8x - (4x + 12)$$ Klammer auflösen

$$0 = 8x - 4x - 12$$ vereinfachen

$$0 = 4x - 12$$ auf beiden Seiten 12 addieren

$$12 = 4x$$ beide Seiten durch 4 dividieren

$$\mathbf{3 = x}$$

2

$$7x - 10 = 15 - (x - 14)$$

$$7x - 10 = 15 - x + 14$$

$$7x - 10 = 29 - x \qquad \mid \; +x + 10$$

$$7x - 10 + x + 10 = 29 - x + x + 10$$

$$8x = 39 \qquad \mid \; : 8$$

$$\mathbf{x = \dfrac{39}{8}}$$

3

$$7\,(x + 1) = 6\,(x - 1)$$

$$7x + 7 = 6x - 6 \qquad \mid \; -6x - 7$$

$$7x + 7 - 6x - 7 = 6x - 6 - 6x - 7$$

$$\mathbf{x = \text{-}13}$$

4

$$57 - 2\,(x + 21) = 63 - 2\,(3x + 4)$$

$$57 - 2x - 42 = 63 - 6x - 8$$

$$15 - 2x = 55 - 6x$$

$$15 - 2x + 6x - 15 = 55 - 6x + 6x - 15$$

$$4x = 40$$

$$\mathbf{x = 10}$$

5

$$5\,(x + 7) + 2\,(x + 7) - 4\,(x + 7) = 3 \qquad \mid \; \text{zusammenfassen!}$$

$$3\,(x + 7) = 3 \qquad \mid \; : 3$$

$$x + 7 = 1$$

$$\mathbf{x = \text{-}6}$$

6

$$15 - 3\,(2x - 1) = 16\,(x + 1) - 2\,(x - 1)$$

$$15 - 6x + 3 = 16x + 16 - 2x + 2$$

$$18 - 6x = 14x + 18 \qquad \mid \; +6x - 18$$

$$18 - 6x + 6x - 18 = 14x + 18 + 6x - 18$$

$$0 = 20x$$

$$\mathbf{0 = x}$$