

Gleichungen mit längeren Angaben

Lösungen

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1. $7x - 4x + 27 = 68 - 3x + x + 4$

$$3x + 27 = 72 - 2x$$

$$5x = 45$$

$$\underline{x = 9}$$

Probe : $\underline{x = 9}$

$$7 \cdot 9 - 4 \cdot 9 + 27 = 68 - 3 \cdot 9 + 9 + 4$$

$$63 - 36 + 27 = 68 - 27 + 9 + 4$$

$$\underline{54 = 54 ; \text{w.A.}}$$

2. $6x + 2x - 36 = 4x + 54 - x$

$$8x - 36 = 3x + 54$$

$$5x = 90$$

$$\underline{x = 18}$$

Probe : $\underline{x = 18}$

$$6 \cdot 18 + 2 \cdot 18 - 36 = 4 \cdot 18 + 54 - 18$$

$$108 + 36 - 36 = 72 + 54 - 18$$

$$\underline{108 = 108 ; \text{w.A.}}$$

3. $9 \cdot (x - 7) - 2x = 3 \cdot (2x + 15) - 105$

$$9x - 63 - 2x = 6x + 45 - 105$$

$$7x - 63 = 6x - 60$$

$$\underline{x = 3}$$

Probe : $\underline{x = 3}$

$$9 \cdot (3 - 7) - 2 \cdot 3 = 3 \cdot (2 \cdot 3 + 15) - 105$$

$$9 \cdot (-4) - 6 = 3 \cdot (+21) - 105$$

$$-36 - 6 = 63 - 105$$

$$\underline{-42 = -42 ; \text{w.A.}}$$

4. $(x + 2) \cdot 5 + 3 \cdot (2x - 3) = 48 + (x + 12) \cdot 4 + 3$

$$5x + 10 + 6x - 9 = 48 + 4x + 48 + 3$$

$$11x + 1 = 4x + 99$$

$$7x = 98$$

$$\underline{x = 14}$$

Probe : $\underline{x = 14}$

$$(14 + 2) \cdot 5 + 3 \cdot (2 \cdot 14 - 3) = 48 + (14 + 12) \cdot 4 + 3$$

$$16 \cdot 5 + 3 \cdot 25 = 48 + 26 \cdot 4 + 3$$

$$80 + 75 = 48 + 104 + 3$$

$$\underline{155 = 155 ; \text{w.A.}}$$