Gleichungen der Form **ax + b = cx + d** (ohne TR)

1.)

$$6x - 6 = 2x + 2 \qquad | +6$$
$$6x = 2x + 8 \qquad | -2x$$
$$4x = +8 \qquad | :4$$
$$\underline{x = 2}$$

P.: $6 \cdot 2 - 6 = 2 \cdot 2 + 2$
$12 - 6 = 4 + 2$
$6 = 6 \qquad$ w.A.

2.)

$$8x + 4 = 3x - 11 \qquad | -4$$
$$8x = 3x - 15 \qquad | -3x$$
$$5x = -15 \qquad | :5$$
$$\underline{x = -3}$$

P.: $8 \cdot (-3) + 4 = 3 \cdot (-3) - 11$
$-24 + 4 = -9 - 11$
$-20 = -20 \qquad$ w.A.

3.)

$$2x + 1 = 17 - 2x \qquad | -1$$
$$2x = 16 - 2x \qquad | +2x$$
$$4x = 16 \qquad | :4$$
$$\underline{x = 4}$$

P.: $2 \cdot 4 + 1 = 17 - 2 \cdot 4$
$8 + 1 = 17 - 8$
$9 = 9 \qquad$ w.A.

4.)

$$3x - 6 = 5x - 4 \qquad | +6$$
$$3x = 5x + 2 \qquad | -5x$$
$$-2x = +2 \qquad | :(-2)$$
$$\underline{x = -1}$$

P.: $3 \cdot (-1) - 6 = 5 \cdot (-1) - 4$
$-2 - 6 = -5 - 4$
$-9 = -9 \qquad$ w.A.

5.)

$$8x - 7 = 3x + 8 \qquad | +7$$
$$8x = 3x + 15 \qquad | -3x$$
$$5x = +15 \qquad | :5$$
$$\underline{x = 3}$$

P.: $8 \cdot 3 - 7 = 3 \cdot 3 + 8$
$24 - 7 = 9 + 8$
$17 = 17 \qquad$ w.A.

6.)

$$10x + 6 = 4x - 18 \qquad | -6$$
$$10x = 4x - 24 \qquad | -4x$$
$$6x = -24 \qquad | :6$$
$$\underline{x = -4}$$

P.: $10 \cdot (-4) + 6 = 4 \cdot (-4) - 18$
$-40 + 6 = -16 - 18$
$-34 = -34 \qquad$ w.A.

7.)

$$4x - 9 = 7x - 3 \qquad | +9$$
$$4x = 7x + 6 \qquad | -7x$$
$$-3x = +6 \qquad | :(-3)$$
$$\underline{x = -2}$$

P.: $4 \cdot (-2) - 9 = 7 \cdot (-2) - 3$
$-8 - 9 = -14 - 3$
$-17 = -17 \qquad$ w.A.