Löse die Gleichungen nach x auf.

1.   6x + 1 = 31

$$6x + 1 = 31 \quad |-1$$
$$6x = 30 \quad |:6$$
$$x = 5$$
$$L = \{5\}$$

$$6x + 1 = 31 \quad |-1$$
$$6x = 30 \quad |:6$$
$$x = 5$$
$$L = \{5\}$$

2.   6x - 1 = 23

$$6x - 1 = 23 \quad |+1$$
$$6x = 24 \quad |:6$$
$$x = 4$$
$$L = \{4\}$$

3.   6x + 2 = -28

$$6x + 2 = -28 \quad |-2$$
$$6x = -30 \quad |:6$$
$$x = -5$$
$$L = \{-5\}$$

4.   -2x - 6 = -4

$$-2x - 6 = -4 \quad |+6$$
$$-2x = 2 \quad |:(-2)$$
$$x = -1$$
$$L = \{-1\} -2x = 2 \quad |:(-2)$$
$$x = -1$$
$$L = \{-1\}$$

5.   6x + 6 = 6x + 6

$$6x + 6 = 6x + 6 |-6$$
$$6x = 6x \quad |:6$$
$$x = x$$
$$L = R$$

6.   3(x + 6) = 3x + 3

$$3(x + 6) = 3x + 3 |T$$
$$3x + 18 = 3x + 3 |-3x$$
$$18 = 3$$
$$L = \{\,\}$$

7.   -5x + 2 = -2 - 6x

$$-5x + 2 = -2 - 6x |+6x$$
$$x + 2 = -2 \quad |-2$$
$$x = -4$$
$$L = \{-4\}$$

8.   -4x + 3 = 2 - 5x

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