

Löse die Gleichungen nach x auf.

$$\begin{aligned} 1. \quad 6x + 1 &= 31 & 6x + 1 &= 31 \quad |-1 \\ & & 6x &= 30 \quad |:6 \\ & & x &= 5 \\ & & L &= \{5\} \end{aligned}$$

$$2. \quad 6x - 1 = 23$$

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

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

$$3. \quad 6x + 2 = -28$$

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

$$4. \quad -2x - 6 = -4$$

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

$$5. \quad 6x + 6 = 6x + 6$$

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

$$6. \quad 3(x + 6) = 3x + 3$$

$$\begin{aligned} 6x + 6 &= 6x + 6 \quad |-6 \\ 6x &= 6x \quad |:6 \\ x &= x \\ L &= \mathbb{R} \end{aligned}$$

$$7. \quad -5x + 2 = -2 - 6x$$

$$\begin{aligned} 3(x + 6) &= 3x + 3 \quad |T \\ 3x + 18 &= 3x + 3 \quad |-3x \\ 18 &= 3 \\ L &= \{ \} \end{aligned}$$

$$8. \quad -4x + 3 = 2 - 5x$$

$$\begin{aligned} -5x + 2 &= -2 - 6x \quad |+6x \\ x + 2 &= -2 \quad |-2 \\ x &= -4 \\ L &= \{-4\} \end{aligned}$$

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