

# Gleichungen III

## LÖSUNG NR. 1-3



$$\begin{aligned} 1) \quad 5x - 9(x - 8) &= 46 + 2x + 8 \\ 5x - 9x + 72 &= 46 + 2x + 8 \\ -4x + 72 &= 54 + 2x && | + 4x \\ 72 &= 54 + 6x && | - 54 \\ 18 &= 6x && | : 6 \\ 3 &= x \end{aligned}$$

Probe:  $5 \cdot 3 - 9(3 - 8) = 46 + 2 \cdot 3 + 8$   
 $15 - 27 + 72 = 46 + 6 + 8$   
 $60 = 60$  wahre Aussage!

$$\begin{aligned} 2) \quad 5 + 6x + 23x &= 4x + 51 + 15x + 24 \\ 5 + 29x &= 19x + 75 && | - 19x \\ 5 + 10x &= 75 && | - 5 \\ 10x &= 70 && | : 10 \\ x &= 7 \end{aligned}$$

Probe:  $5 + 6 \cdot 7 + 23 \cdot 7 = 4 \cdot 7 + 51 + 15 \cdot 7 + 24$   
 $5 + 42 + 161 = 28 + 51 + 105 + 24$   
 $208 = 208$  wahre Aussage!

$$\begin{aligned} 3) \quad 4 + 4x - 2(2x - 16) &= 21x + 15 \\ 4 + 4x - 4x + 32 &= 21x + 15 \\ 36 &= 21x + 15 && | - 15 \\ 21 &= 21x && | : 21 \\ 1 &= x \end{aligned}$$

Probe:  $4 + 4 \cdot 1 - 2(2 \cdot 1 - 16) = 21 \cdot 1 + 15$   
 $4 + 4 - 2 \cdot (-14) = 21 + 15$   
 $4 + 4 + 28 = 36$   
 $36 = 36$  wahre Aussage!