

1. Bez

Gleichungen

Lösungen AB 7

1. $3x + 5x = 88$
 $8x = 88$ / :8
 $x = 11$
2. $6x - 2x = 96$
 $4x = 96$ / :4
 $x = 24$
3. $x + 4x + 7x = 696$
 $12x = 696$ / :12
 $x = 58$
4. $11x - 8x = 123$
 $3x = 123$ / :3
 $x = 41$
5. $x + (x + 1) + (x + 2) = 114$
 $x + x + 1 + x + 2 = 114$
 $3x + 3 = 114$ / -3
 $3x = 111$ / :3
 $x = 37$
6. $x + (x + 1) + (x + 2) + (x + 3) + (x + 4) = 305$
 $x + x + 1 + x + 2 + x + 3 + x + 4 = 305$
 $5x + 10 = 305$ / -10
 $5x = 295$ / :5
 $x = 59$
7. $3(x + 6) + 2 = 5x$
 $3x + 18 + 2 = 5x$
 $3x + 20 = 5x$ / -3x
 $20 = 2x$ / :2
 $10 = x$
8. $7(x + 2) = 8x + 1$
 $7x + 14 = 8x + 1$ / -7x
 $14 = x + 1$ / -1
 $13 = x$
9. $3x + 9 = 5(x - 5)$
 $3x + 9 = 5x - 25$ / -3x
 $9 = 2x - 25$ / +25
 $34 = 2x$ / :2
 $17 = x$

$$\begin{aligned}
10. \quad & 4(x-3) - 19 = 3x \\
& 4x - 12 - 19 = 3x \\
& 4x - 31 = 3x & / -3x \\
& x - 31 = 0 & / +31 \\
& \underline{x = 31}
\end{aligned}$$

$$\begin{aligned}
11. \quad & 9(x+7) = 15(x-5) \\
& 9x + 63 = 15x - 75 & / -9x \\
& 63 = 6x - 75 & / +75 \\
& 138 = 6x & / :6 \\
& \underline{23 = x}
\end{aligned}$$

$$\begin{aligned}
12. \quad & x + 3x + 26 = 5x + 4 \\
& 4x + 26 = 5x + 4 & / -4x \\
& 26 = x + 4 & / -4 \\
& \underline{22 = x}
\end{aligned}$$

$$\begin{aligned}
13. \quad & 7(12-x) = 2(3x-10) \\
& 84 - 7x = 6x - 20 & / +7x \\
& 84 = 13x - 20 & / +20 \\
& 104 = 13x & / :13 \\
& \underline{8 = x}
\end{aligned}$$

$$\begin{aligned}
14. \quad & 360 - 6x = 280 - 4x & / +6x \\
& 360 = 280 + 2x & / -280 \\
& 80 = 2x & / :2 \\
& \underline{40 = x}
\end{aligned}$$

15. erste Zahl: x
zweite Zahl: $x - 13$
dritte Zahl: $x - 13 - 8$

$$\begin{aligned}
& x + (x - 13) + (x - 21) = 80 \\
& x + x - 13 + x - 21 = 80 \\
& 3x - 34 = 80 & / +34 \\
& 3x = 114 & / :3 \\
& \underline{x = 38}
\end{aligned}$$

Es sind die Zahlen 38, 25 und 17.