

## Algebra – Resultate zu den Theorie-Aufgaben

- i.  $9 = 13 - x \Leftrightarrow \underline{\underline{x = 4}}$
- ii.  $4x - 9 = 11 \Leftrightarrow \underline{\underline{x = 5}}$
- iii.  $15x - 9 = 4x + 90 \Leftrightarrow \underline{\underline{x = 9}}$
- iv.  $16x - (5x + 22) = 0 \Leftrightarrow \underline{\underline{x = 2}}$
- v.  $4(x - 3) = 3(x - 2) \Leftrightarrow \underline{\underline{x = 6}}$
- vi.  $5(x + 9) - (17 - 2x) = 0 \Leftrightarrow \underline{\underline{x = -4}}$
- vii.  $15(x - 22) - 3(5x - 24) = 0 \Leftrightarrow 0x = 258 \Rightarrow \underline{\underline{\mathbb{L} = \{\}}}$  (leere Menge)
- viii.  $105(1 - x) = -100(3 - x) \Leftrightarrow \underline{\underline{x = \frac{81}{41}}}$
- ix.  $4(x - 1) - 3(1 - x) = 14 \Leftrightarrow \underline{\underline{x = 3}}$
- x.  $3(x - 3) + 7(2x + 6) = 33 \Leftrightarrow \underline{\underline{x = 0}}$
- xi.  $5(2x - 1) - 7(1 - 2x) = 18 + 24x \Leftrightarrow 0 = 5 \Rightarrow \underline{\underline{\mathbb{L} = \{\}}}$
- xii.  $4(4x - 2) - 17(1 - 2x) = 175 \Leftrightarrow \underline{\underline{x = 5}}$
- xiii.  $(x - 5)(x - 2) = (x - 4)(x + 3) \Leftrightarrow \underline{\underline{x = \frac{11}{3}}}$
- xiv.  $(x - 5)(x - 2) = (x - 3)(x - 4) - 2 \Leftrightarrow 0 = 0 \Rightarrow \underline{\underline{\mathbb{L} = \mathbb{R}}}$  (alle  $x \in \mathbb{R}$  sind Lösungen)
- xv.  $(x + 1)(x + 7) = (x + 2)(x + 3) \Leftrightarrow \underline{\underline{x = -\frac{1}{3}}}$
- xvi.  $x(x + 4) = (x - 1)(x + 6) \Leftrightarrow \underline{\underline{x = 6}}$
- xvii.  $(3x - 1)(x + 3) = (x + 2)(3x + 2) \Leftrightarrow -3 = 4 \Rightarrow \underline{\underline{\mathbb{L} = \{\}}}$
- xviii.  $(x + 8)(x - 3) = (x - 1)^2 \Leftrightarrow \underline{\underline{x = \frac{25}{7}}}$
- ixx.  $(x - 1)(x + 1) = (x - 2)(x + 3) \Leftrightarrow \underline{\underline{x = 5}}$
- xx.  $(x + 2)^2 = x(x + 5) \Leftrightarrow \underline{\underline{x = 4}}$