**Äquivalente Gleichungen III**

**Löse folgende Gleichungen durch Äquivalenzumformung.**

**Scheibe die Lösungsmenge.**

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| 1. 8(x + 6)(x - 9) = x(8x + 1) - 232 │ T  8(x² + 6x -9x - 54) = 8x² + x - 232 │ T  8(x² - 3x – 54) = 8x² + x - 232 │ T  8x² - 24x – 432 = 8x² + x - 232 │-8x²  - 24x – 432 = x - 232 │+432  -24x = x + 200 │-x  -25x = 200 │:(-25)  x = -8 **L = { -8 }** |
| 2. 4(x + 9)(x + 4) = 324 + x(4x - 8) │ T  4(x² + 9x + 4x + 36) = 324 + 4x² - 8x │ T  4(x² + 13x + 36) = 324 + 4x² - 8x │ T  4x² + 52x + 144 = 324 + 4x² - 8x │-4x²  52x + 144 = 324 - 8x │+8x  60x + 144 = 324 │-144  60x = 180 │:60  x = 3 **L = { 3 }** |
| 3. 5(x - 7)(x + 4) = x(5x - 7) - 116 │ T  5(x² - 7x + 4x – 28) = 5x² - 7x -116 │ T  5(x² -3x -28) = 5x² - 7x -116 │ T  5x² - 15x – 140 = 5x² - 7x -116 │-5x²  - 15x – 140 = - 7x -116 │+140  -15x = -7x + 24 │-7x  -8x = 24 │:(-8)  x = -3 **L = { -3 }** |