**LGS – Gemischte Übungen I**

**Forme um und löse das Gleichungssystem.**

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| **I. (2 + y)² + 2(2 + x) = y² |T**  **II. (x – 3)² + 3(y – 4) = x² |T**  **I. 4 + 4y + y² + 4 + 4x = y² |-y² |T**  **II. x² - 6x + 9 + 3y – 12 = x² |-x² |T**  **I. 8 + 4y + 4x = 0 |-4x - 8**  **II. -6x – 3 + 3y = 0 |+6x + 3**  **I. 4y = -4x – 8 |:4**  **II. 3y = 6x + 3 |:3**  **I. y = -x – 2 Gleichsetzungsverfahren**  **II. y = 2x + 1 -x – 2 = 2x + 1 |+x - 1**  **-3 = 3x |:3**  **x = -1**  **in I. y = 1 – 2 = -1 L = {-1; -1}** |
| **I. (y - 3)(x + 2) + (2 - y)(3 + x) = -5 |T**  **II. (x + 3)(y – 1) + (3 + y)(2 – x) = 13 + x |T**  **I. xy – 3x + 2y – 6 + 6 – 3y + 2x – xy = -5 |T**  **II. xy + 3y – x – 3 + 6 + 2y - 3x – xy = 13 + x |T**  **I. -x – y = -5 |+x**  **II. 5y – 4x + 3 = 13 + x |+4x - 3**  **I. –y = x – 5 |·(-1)**  **II. 5y = 5x – 10 |:5**  **I. y = -x + 5 Gleichsetzungsverfahren**  **II. y = x – 2 -x + 5 = x – 2 |+x + 2**  **7 = 2x |:2**  **x = 3,5**  **in II. y = 3,5 – 2 = 1,5 L = {3,5; 1,5}** |
| **I. (y + 4)² + 8(4 + x) = y² |T**  **II. (x – 5)² - 5(y – 4) = x² |T**  **I. y² + 8y + 16 + 32 + 8x = y² |T**  **II. x² - 10x + 25 - 5y + 20 = x² |T**  **I. 8y + 48 + 8x = 0 |-8x - 48**  **II. -10x + 45 – 5y = 0 |+10x - 45**  **I. 8y = -8x – 48 |:8**  **II. -5y = 10x – 45 |:(-5)**  **I. y = -x – 6 Gleichsetzungsverfahren**  **II. y = -2x + 9 -x – 6 = -2x + 9 |+2x + 6**  **x = 15**  **in I. -15 – 6 = -21 L = {15; -21}** |