**LGS mit drei Variablen III**

**Bestimme x,y und z. Schreibe die Lösungsmenge.**

|  |  |
| --- | --- |
| I. 9x + 4y - 6z = 9II. 5x - 2y + 7z = -64III. -5x + y - 4z = 46L = { -5; 9; -3}II. + III.IV. -y + 3z = -18  ⬄ y = 18 + 3zI. 9x + 4y - 6z = 9 |·5III. -5x + y - 4z = 46 |·9I. 45x + 20y – 30z = 45III. -45x + 9y – 36z = 414I. + III.V. 29y – 66z = 459IV. in V.29(18 + 3z) – 66z = 459 522 + 87z – 66z = 459 |-522 21z = -63 |:21 **z = -3**in IV z = -3**y = 18 – 9 = 9**in I.9x + 36 + 18 = 9 |T 9x + 54 = 9 |-54 9x = -45 |:9 **x = -5** | I. -8x - y - 4z = -56II. 4x + 7y - 9z = 124III. x - y - 8z = 32L = { 8; 8; -4}I. – III.IV. -9x + 4z = -88II. 4x + 7y - 9z = 124III. x - y - 8z = 32 |·7II. 4x + 7y - 9z = 124III. 7x - 7y - 56z = 224V. 11x – 65z = 348IV. -9x + 4z = -88 |·11V. 11x – 65z = 348 |·9IV. -99x + 44z = -968V. 99x – 585z = 3132IV. + V.-541z = 2164 |:(-541) z = -4in IV. z = -4 einsetzen -9x - 16 = -88 |+16 -9x = -72 |:(-9) **x = 8**in III.8 – y + 32 = 32 |-40 -y = -8 |·(-1) **y = 8** |