**LGS mit drei Variablen II**

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

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| --- | --- |
| I. 9x + 2y - 8z = 155  II. 3x + 6y - 3z = 102  III. 2x + 6y - 3z = 93  **L = { 9; 9; -7}**  II. 3x + 6y - 3z = 102  III. 2x + 6y - 3z = 93  II. - III.  IV. x = 9  I. 9x + 2y - 8z = 155 |·3  II. 3x + 6y - 3z = 102  I. 27x + 6y - 24z = 465  II. 3x + 6y - 3z = 102  I. – II.  V. 24x – 21z = 363  Einsetzen x = 4:  96 – 21z = 363 |-96  -21z = 267 |:(-21)  **z = -7**  in III.  18 + 6y + 21 = 93 |T  39 + 6y = 93 |-39  6y = 54 |:6  **y = 9** | I. x + 5y - 7z = -61  II. 8x + 5y + 6z = -19  III. 2x - 9y + 9z = 58  **L = {-7 ; -1; 7}**  I. – II.  I. x + 5y - 7z = -61  II. 8x + 5y + 6z = -19  IV. -7x – 13z = -42  I. x + 5y - 7z = -61 |·9  III. 2x - 9y + 9z = 58 |·5  I. 9x + 45y - 63z = -549  III. 10x - 45y + 45z = 290  I. + III.  V. 19x – 18z = -259  IV. -7x – 13z = -42 |·19  V. 19x – 18z = -259 |·7  IV. -133x – 247z = -798  V. 133x – 126z = -1813  IV. + V.  -373z = -2611 |:(-373)  **z = 7**  in IV. -7x – 91 = -42 |+91  -7x = 49 |:(-7)  **x = -7**  in I.  -7 + 5y - 49 = -61 |+56  5y = -5 |:5  **y = -1** |