**LGS mit drei Variablen IV**

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

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| --- | --- |
| I. 5x + 5y + 7z = 30  II. 2x + y + z = 10  III. x - 4y - 4z = 14  **L = { 6; -7; 5}**  I. 5x + 5y + 7z = 30 |·2  II. 2x + y + z = 10 |·5  I. 10x + 10y + 14z = 60  II. 10x + 5y + 5z = 50  I. – II.  IV. 5y + 9z = 10  II. 2x + y + z = 10  III. x - 4y - 4z = 14 |·2  II. 2x + y + z = 10  III. 2x - 8y - 8z = 28  II. – III.  V. 9y + 9z = -18  IV. 5y + 9z = 10  V. 9y + 9z = -18  IV. – V.  -4y = 28 |:(-4)  **y = -7**  in IV. y = -7 einsetzen  -35 + 9z = 10 |+35  9z = 45 |:9  **z = 5**  in III.  x + 28 - 20 = 14 |-8  **x = 6** | I. -3x - 5y + z = -40  II. 8x - 5y + 8z = -11  III. -3x + 9y + 3z = 60  **L = { 2; 7; 1}**  I. – II.  IV. -11x – 7z = -29  II. 8x - 5y + 8z = -11 |·9  III. -3x + 9y + 3z = 60 |·5  II. 72x - 45y + 72z = -99  III. -15x + 45y + 15z = 300  II. + III.  V. 57x + 87z = 201  IV. -11x – 7z = -29 |·87  V. 57x + 87z = 201 |·7  IV. -957x – 609z = -2523  V. 399x + 609z = 1407  IV. + V.  558x = -1116 |:558  **x = 2**  in IV. **x = 2** einsetzen  -22 – 7z = -29 |+22  - 7z = -7 |:(-7)  **z = 1**  in I.  -6 - 5y + 1 = -40 |+5  -5y = -35 |:(-5)  **y = 7** |