

Eingesetzt in (G_2'') :

$$\begin{array}{rcl}
 -15b - 31 \cdot (-5) - 45 \cdot 5 = -10 & & | \text{ TU} \\
 -15b - 70 = -10 & & | + 70 \\
 -15b = 60 & & | : -15 \\
 b = -4 & &
 \end{array}$$

Eingesetzt in (G_2') :

$$\begin{array}{rcl}
 a - 9 \cdot (-4) - 15 \cdot (-5) - 22 \cdot 5 = -4 & & | \text{ TU} \\
 a + = -4 & & | - \\
 a = -5 & &
 \end{array}$$

Eingesetzt in (G_0) :

$$\begin{array}{rcl}
 \cdot(-5) + 4 \cdot (-4) + 3 \cdot (-5) + d + 6 \cdot 5 = -4 & & | \text{ TU} \\
 d - 6 = -4 & & | + 6 \\
 d = 2 & &
 \end{array}$$

Lösung: $a = -5, b = -4, c = -5, d = 2, e = 5$
1)

$$\begin{array}{rcccccccl}
 -3a & -3b & -c & +d & -2e & = 3 & (G_0) \\
 -5a & -4b & -c & +d & -e & = -2 & (G_1) \\
 4a & -2b & +3c & +2d & -e & = 2 & (G_2) \\
 4a & +4b & -5c & +5d & +e & = -2 & (G_3) \\
 5a & & +2c & +3d & +e & = -3 & (G_4)
 \end{array}$$

Variable e eliminieren:

$$\begin{array}{rcccccccl}
 (G_0) - 2(G_1) : & 7a & +5b & +c & -d & = 7 & (G_0') \\
 (G_1) - (G_2) : & -9a & -2b & -4c & -d & = -4 & (G_1') \\
 (G_2) + (G_3) : & 8a & +2b & -2c & +7d & = 0 & (G_2') \\
 (G_3) - (G_4) : & -a & +4b & -7c & +2d & = 1 & (G_3')
 \end{array}$$

Variable d eliminieren:

$$\begin{array}{rcccccccl}
 (G_0') - (G_1') : & 16a & +7b & +5c & = 11 & (G_0'') \\
 2(G_1') + (G_3') : & -19a & & -15c & = -7 & (G_1'') \\
 (G_2') + 7(G_0'') : & 57a & +37b & +5c & = 49 & (G_2'')
 \end{array}$$

Variable c eliminieren:

$$\begin{array}{rcccccccl}
 (G_0'') - (G_2'') : & -41a & & -30b & = -38 & (G_0''') \\
 (G_1'') + 3(G_0''') : & 29a & +21b & = 26 & (G_1''')
 \end{array}$$