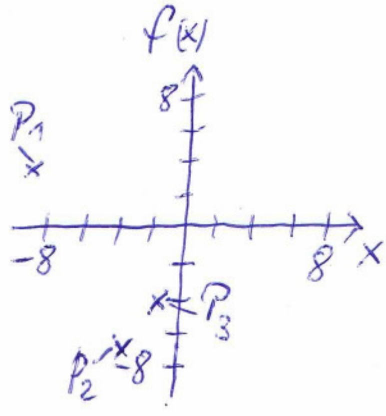
Lösung 04-08

$P_1(-3|4)$ $P_2(-4|-7)$ $P_3(-1|-4)$



Ansatz: $ax^2 + bx + c = f(x)$

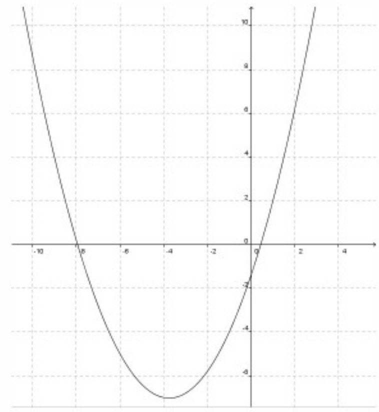
$$\begin{array}{l|l} P_1 & 81a - 9b + 1c = 4 \\ P_2 & 16a - 4b + 1c = -7 \\ P_3 & 1a - 1b + 1c = -4 \end{array}$$

LGS $\overset{\text{Casio}}{\Rightarrow}$ $\mathbb{L} = \{(\frac{2}{5}; 3; \frac{7}{5})\}$

über Gauß'schen Alg.:

$$\begin{matrix} c & b & a & \end{matrix}$$

$$\begin{pmatrix} 1 & -1 & 1 & -4 \\ 1 & -4 & 16 & -7 \\ 1 & -9 & 81 & 4 \end{pmatrix}$$



$$\begin{pmatrix} 1 & -1 & 1 & -4 \\ 0 & -3 & 15 & -3 \\ 0 & -8 & 80 & 8 \end{pmatrix} \Rightarrow \begin{pmatrix} 1 & -1 & 1 & -4 \\ 0 & 1 & -5 & 1 \\ 0 & 1 & -10 & -1 \end{pmatrix}$$

$$\begin{pmatrix} 1 & -1 & 1 & -4 \\ 0 & 1 & -5 & 1 \\ 0 & 0 & -5 & -2 \end{pmatrix}$$

also $a = \frac{2}{5}$

$b = 5a + 1 = 2 + 1 = 3$

$c = -4 - 1 \cdot \frac{2}{5} + 1 \cdot 3 =$

$= -\frac{20}{5} - \frac{2}{5} + \frac{15}{5} = \frac{7}{5}$

$\mathbb{L} = \{(\frac{2}{5}; 3; \frac{7}{5})\}$