GMF - Überlegung

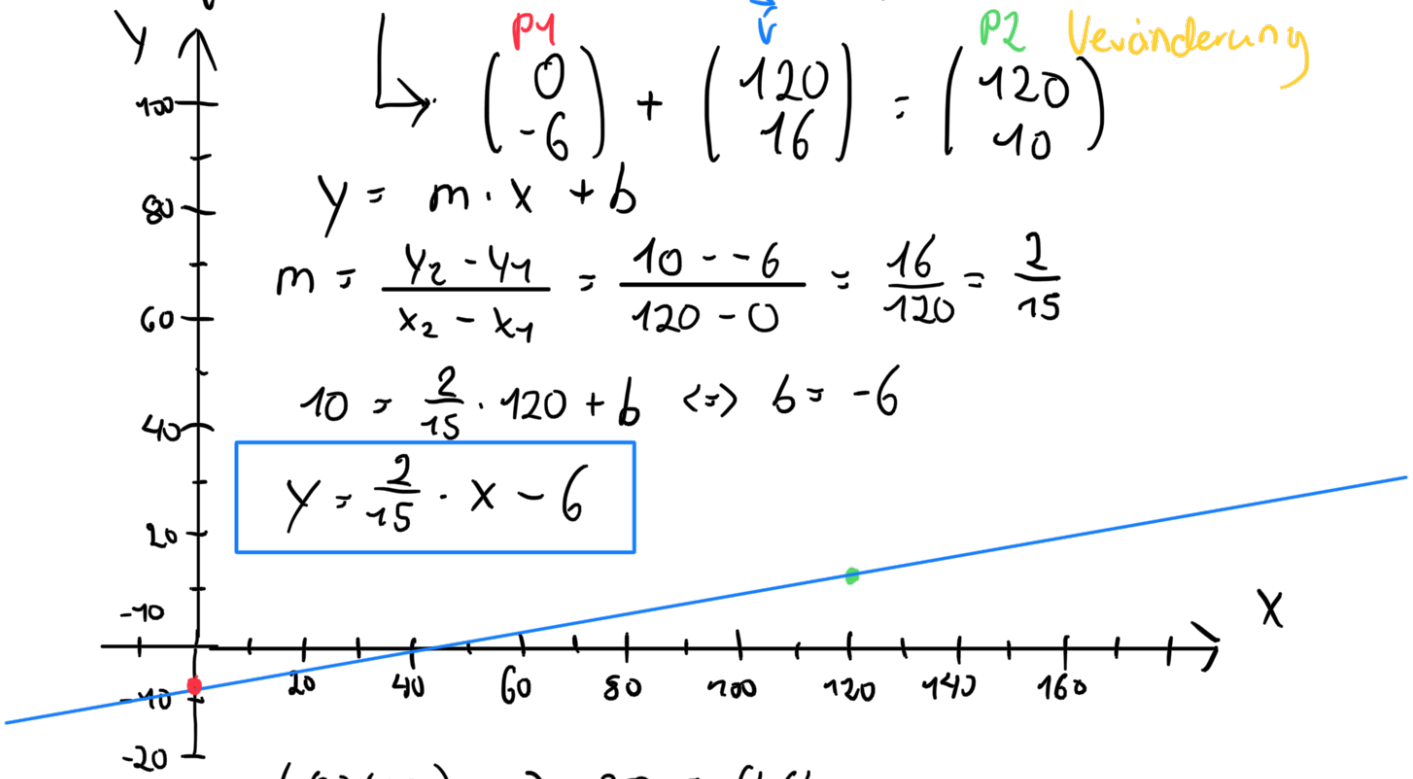
$P1 \quad P2$

$(0, -6, 110) \Rightarrow (120, 10, 110)$

$$\begin{pmatrix} 0 \\ -6 \\ 110 \end{pmatrix} + \begin{pmatrix} x \\ y \\ z \end{pmatrix} = \begin{pmatrix} 120 \\ 10 \\ 110 \end{pmatrix}$$

$$\begin{pmatrix} 120 \\ 10 \\ 110 \end{pmatrix} - \begin{pmatrix} 0 \\ -6 \\ 110 \end{pmatrix} = \begin{pmatrix} x \\ y \\ z \end{pmatrix} = \begin{pmatrix} 120 \\ 16 \\ 0 \end{pmatrix}$$ } 2D-Vektor (keine Z-Veränderung)

$$\hookrightarrow \begin{pmatrix} 0 \\ -6 \end{pmatrix} + \begin{pmatrix} 120 \\ 16 \end{pmatrix} = \begin{pmatrix} 120 \\ 10 \end{pmatrix}$$



$y = m \cdot x + b$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{10 - -6}{120 - 0} = \frac{16}{120} = \frac{2}{15}$$

$10 = \frac{2}{15} \cdot 120 + b \Leftrightarrow b = -6$

$$\boxed{y = \frac{2}{15} \cdot x - 6}$$

$(80|20) \Rightarrow 20 = 4{,}66$

$d = -15{,}3$

$(80|-20) \Rightarrow -20 = 4{,}66 \Leftrightarrow d = 20{,}466$

$0 = \frac{2}{15} \cdot x - 6$

$6 = 2x / 15$

$90 = 2x$

$45 = x$