

S... Startpunkt

$$\Rightarrow \boxed{S(10|0|8)}$$

$$\vec{r}_d \parallel \begin{pmatrix} 1 \\ 2 \\ 1 \end{pmatrix} \times \begin{pmatrix} -1 \\ 1 \\ 2 \end{pmatrix} = \begin{pmatrix} 3 \\ -3 \\ 3 \end{pmatrix} \parallel \begin{pmatrix} 1 \\ -1 \\ 1 \end{pmatrix}$$

$$\Rightarrow \boxed{d: X = \begin{pmatrix} 10 \\ 0 \\ 8 \end{pmatrix} + t \cdot \begin{pmatrix} 1 \\ -1 \\ 1 \end{pmatrix}} \Leftrightarrow \begin{cases} x = 10+t \\ y = -t \\ z = 8+t \end{cases}$$

z.z.: $d \parallel DF$

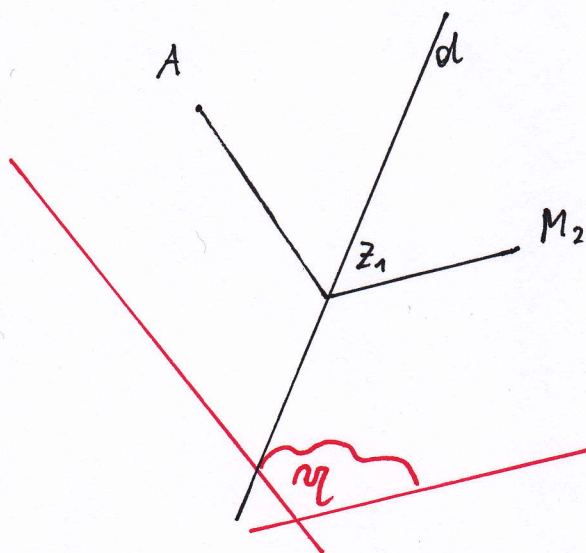
$$D(0|12|10)$$

$$F(12|0|12)$$

$$\vec{DF} = \begin{pmatrix} 12 \\ -12 \\ 12 \end{pmatrix} \parallel \begin{pmatrix} 1 \\ -1 \\ 1 \end{pmatrix}$$

$\rightarrow DF \parallel d$, weil $\vec{DF} \parallel \vec{r}_d$, bzw. $\frac{1}{12} \cdot \vec{DF} = \vec{r}_d$

W.z.z.w.



$$\boxed{\eta: x - y + z = 0}$$

$$d \cap \eta = \{z_1\} \quad | \quad d \cap \eta:$$

$$10 + t + t + 8 + t = 0$$

$$18 + 3t = 0$$

$$18 = -3t \quad | : -3$$

$$\underline{\underline{-6 = t}} \Rightarrow \boxed{z_1(4|6|12)}$$