








1	$n_{\alpha} := (2, 1, -2)$  $\rightarrow \begin{pmatrix} 2 \\ 1 \\ -2 \end{pmatrix}$
2	$S := (11, 2, -6)$  $\rightarrow \mathbf{(11, 2, -6)}$
3	Lager et punkt A i α : $x=z=0$ gir $y=-3$
4	$A := (0, -3, 0)$  $\rightarrow \mathbf{(0, -3, 0)}$
5	$as := \text{Vektor}[A, S]$  $\rightarrow \begin{pmatrix} 11 \\ 5 \\ -6 \end{pmatrix}$
6	$R := as \cdot n_{\alpha} / n_{\alpha} $  $\rightarrow \mathbf{13}$
7	$(x-11)^2 + (y-2)^2 + (z+6)^2 = R^2$  $\rightarrow \mathbf{x^2 + y^2 + z^2 - 22x - 4y + 12z + 161 = 169}$
8	$T_1 := \text{Vektor}[(0, 0, 0), S] + R \cdot 1/ n_{\alpha} \cdot n_{\alpha}$  $\rightarrow \begin{pmatrix} \frac{59}{3} \\ \frac{19}{3} \\ -\frac{44}{3} \end{pmatrix}$

9	$T_2 := \text{Vektor}[(0,0,0), S] - R \frac{1}{ n_\alpha } n_\alpha$ $\rightarrow \begin{pmatrix} \frac{7}{3} \\ -\frac{7}{3} \\ \frac{8}{3} \end{pmatrix}$
10	$T_1 \cdot (2, 1, -2) + 3$ $\rightarrow \mathbf{78}$
11	$T_2 \cdot (2, 1, -2) + 3$ $\rightarrow \mathbf{0}$
12	Tangeringspunktet svarer til T_2 , da T_1 ikke passer i planets ligning:
13	$T := (7/3, -7/3, 8/3)$ $\checkmark \left(\frac{7}{3}, -\frac{7}{3}, \frac{8}{3} \right)$
14	$\rightarrow \mathbf{12}$
15	$r := \sqrt{R^2 - d^2}$ $\rightarrow \mathbf{5}$
16	