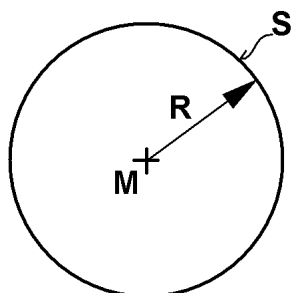


Probl. 1

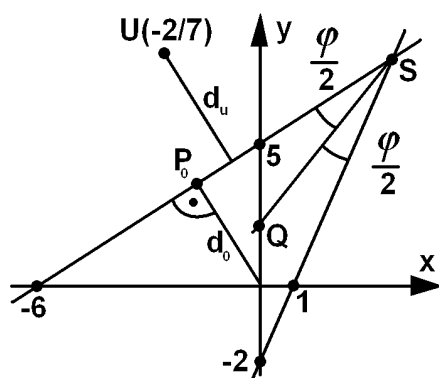
$$3x^2 + 3y^2 - 30x + 18y + 54 = 0$$



(a) $M = ?$

(b) $R = ?$

Probl. 2



(a) $d_0 = ?$

(b) $P_0 = ?$

(c) $d_U = ?$

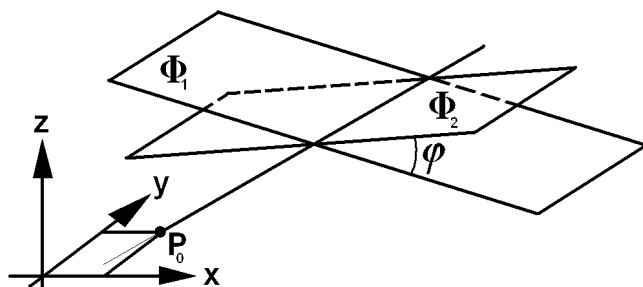
(d) $Q = ?$

(e) $S = ?$

(f) $\varphi = ?$

Probl. 3

$$\begin{aligned}\Phi_1 : 3x + 2y - 3z &= 4 \\ \Phi_2 : 4x - 2y + z &= -1\end{aligned}$$



(a) $\varphi = ?$

(b) $P_0 = ?$

Probl. 4

(a) $F_1 = T = ?$

(b) $d = ?$

