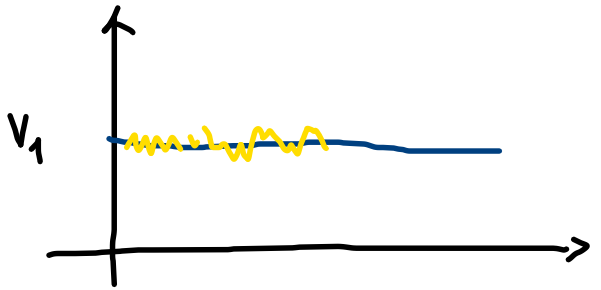
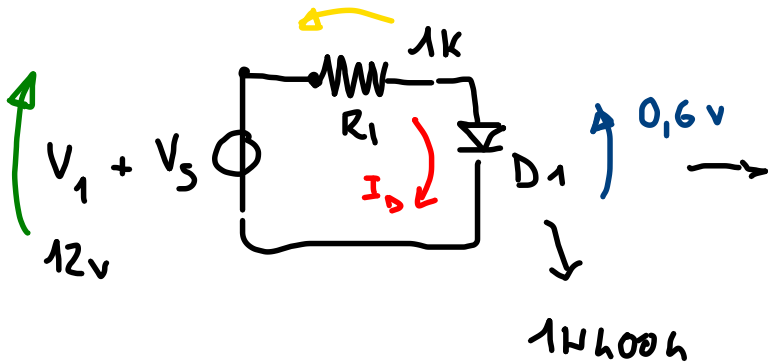
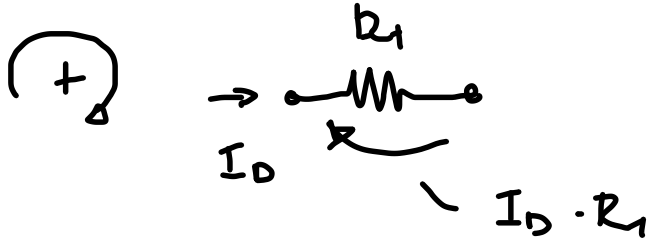
36h







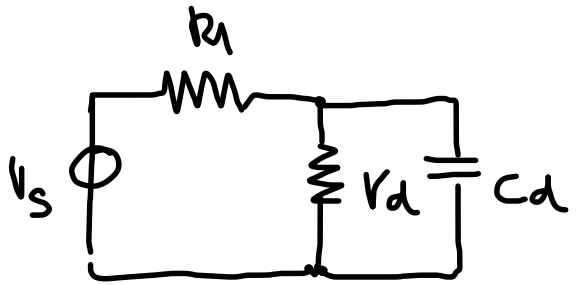
$$V_1 - I_D \cdot R_1 - 0,6 = 0$$

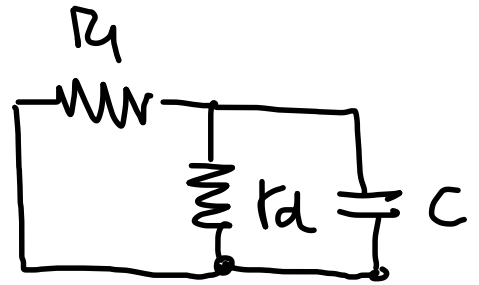
$$-I_D \cdot R_1 = 0,6 - V_1$$

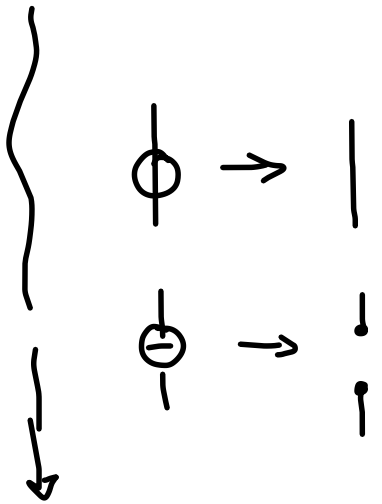
$$I_D \cdot R_1 = -0,6 + V_1$$

$$I_D = \frac{V_1 - 0,6}{R_1} = \frac{12 - 0,6}{1k} =$$

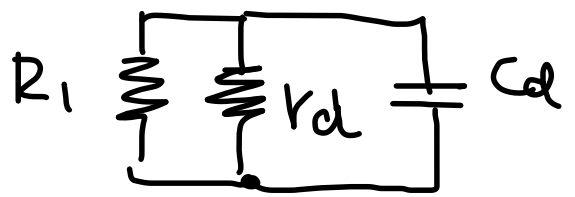
$$I_D = \frac{11,4}{1k} \cong 11,4\ mA$$







$$v_s = A_0 \cdot \text{Sen}(-)$$



$$\tau = (R_1 // r_d) \cdot C_d$$

$$R_1 >> r_d \rightsquigarrow \tau = r_d C_d$$