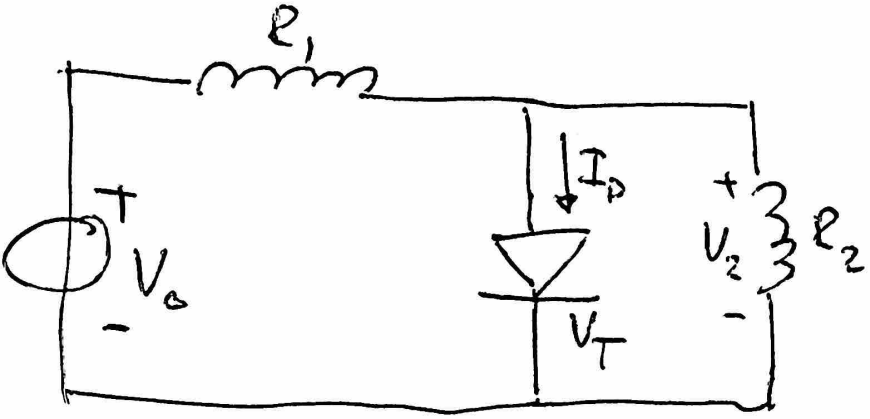
PROBLEM 2



$$\begin{cases} V_2 < V_T \Rightarrow I_D = 0 \Rightarrow V_2 = R_2 \cdot \dfrac{V_o}{R_1 + R_2} = \dfrac{R_2}{R_1 + R_2} \cdot V_o = \dfrac{V_o}{2} \\ V_2 > V_T \Rightarrow I_D > 0 \text{ AND } V_D = V_T \Rightarrow V_T = V_2 \end{cases}$$

a) $V_o = 1.0$

$V_2 = \frac{1}{2} = 0{,}5\ V$ THAT IS $< V_T \Rightarrow I_D = 0 \Rightarrow V_2 = 0{,}5\ V$

b) $V_o = 2.0$

$V_2 = \frac{2}{2} = 1\ V$ THAT IS $> V_T \Rightarrow V_2 = V_T = 0{,}7\ V$

c) $V_o = 3.0$

$V_3 = \frac{3}{2} = 1{,}5\ V$ THAT IS $> V_T \Rightarrow V_2 = V_T = 0{,}7\ V$