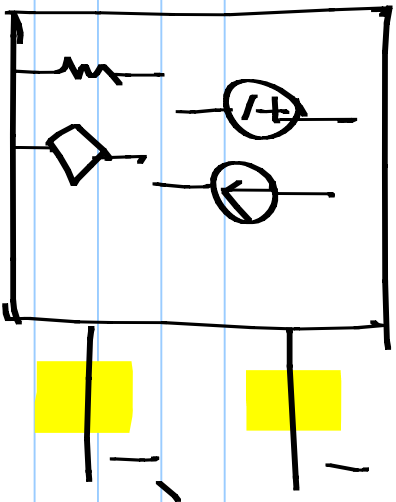


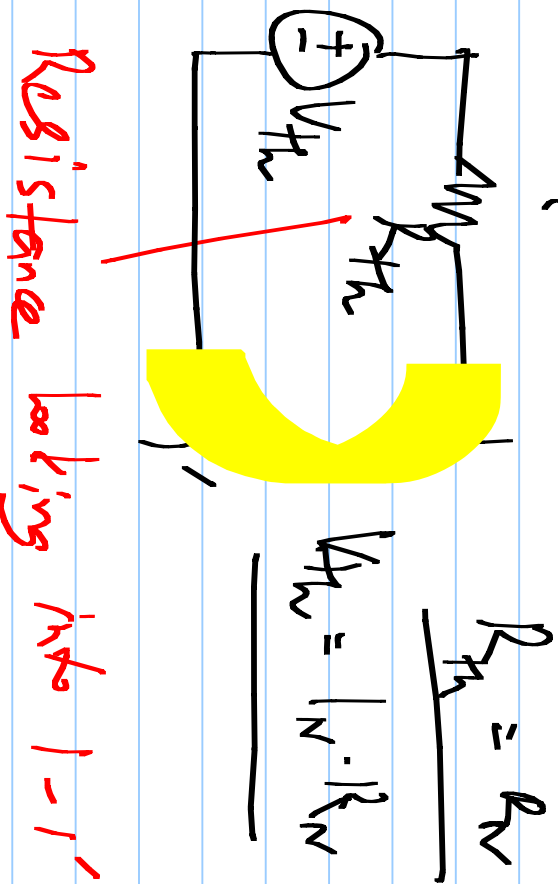
ECE 2015

28/8/2017

open circuit voltage
across 1-1'

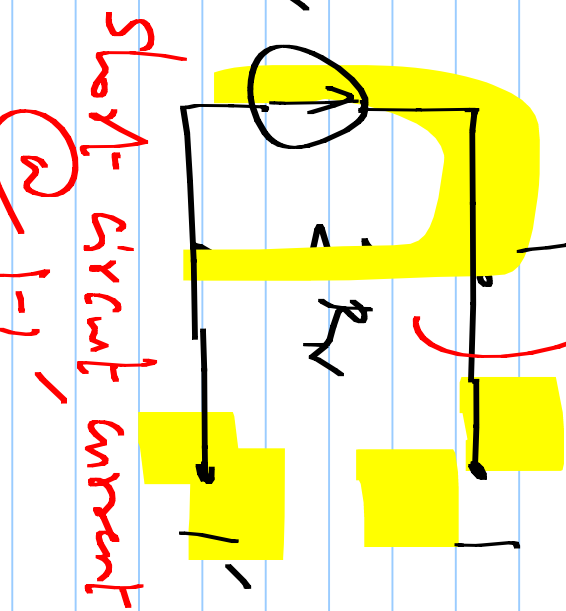


Resistance looking into 1-1'

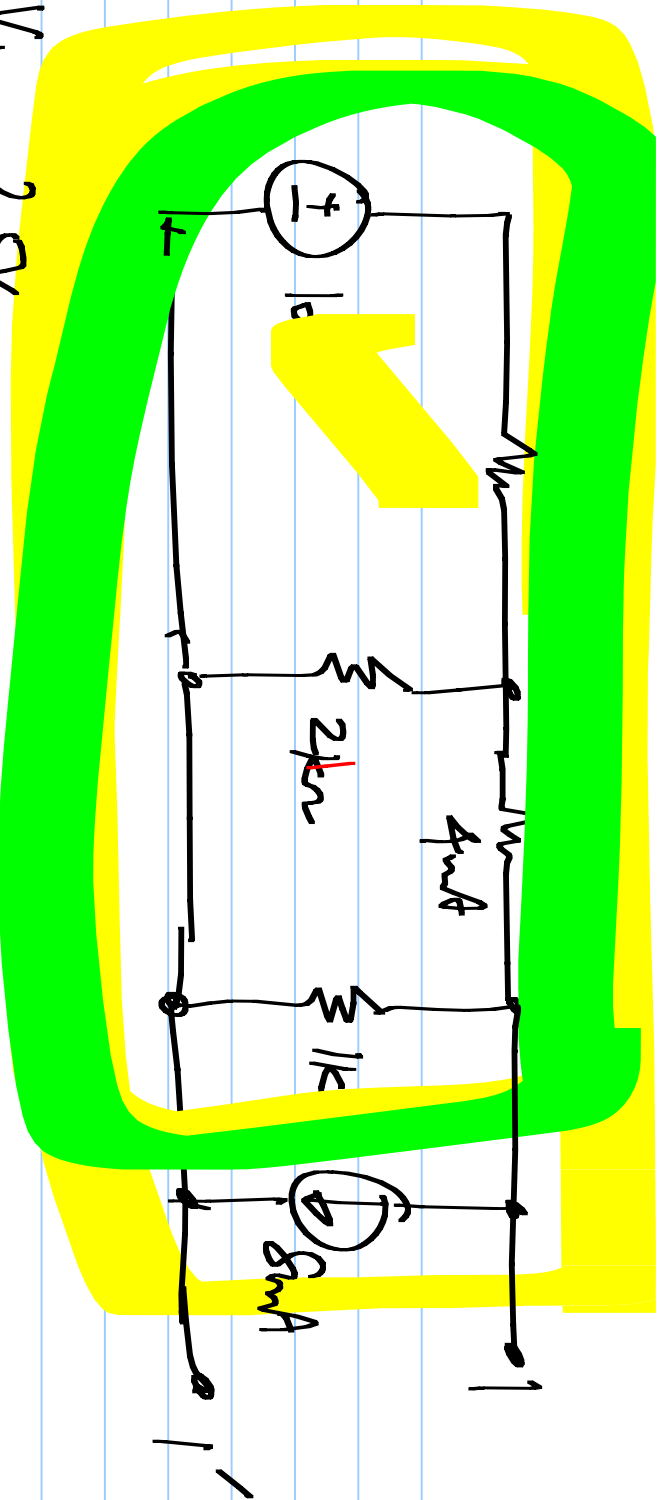


$$R_{th} = R_N$$

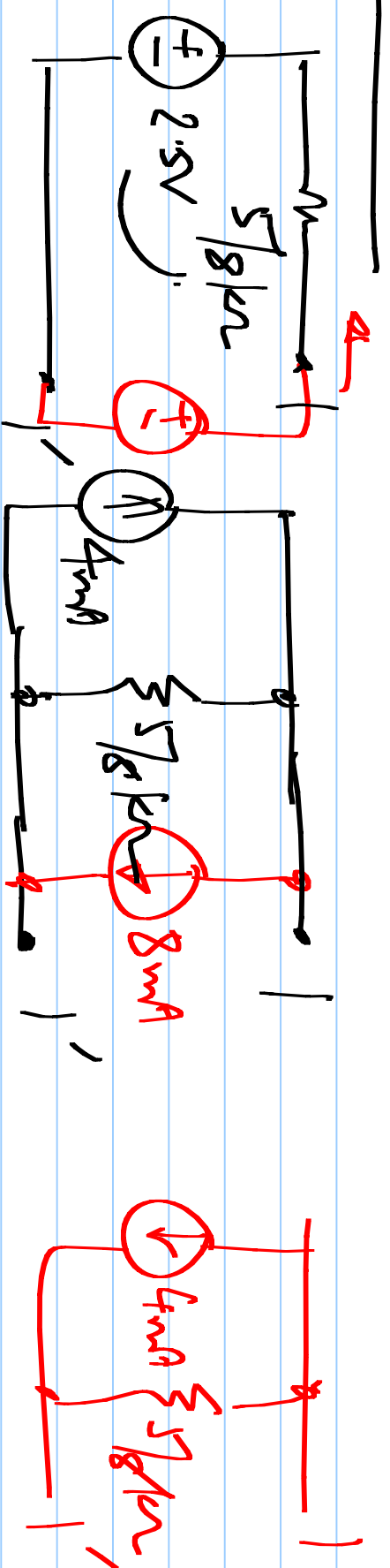
$$V_{th} = I_N \cdot R_N$$

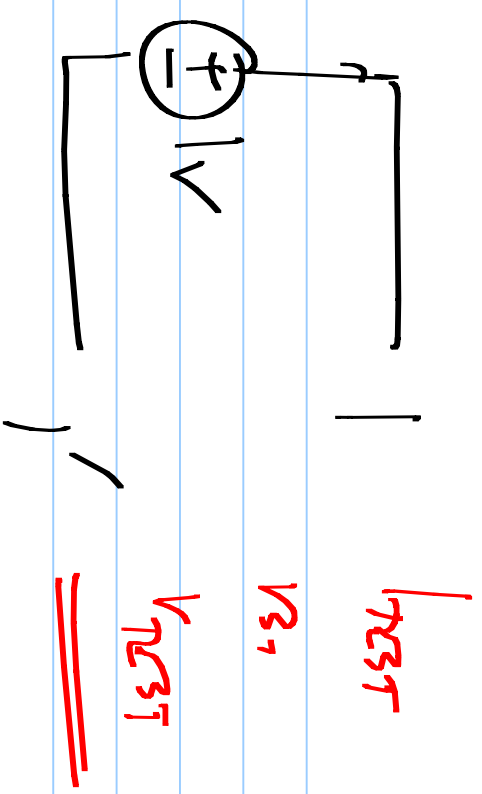
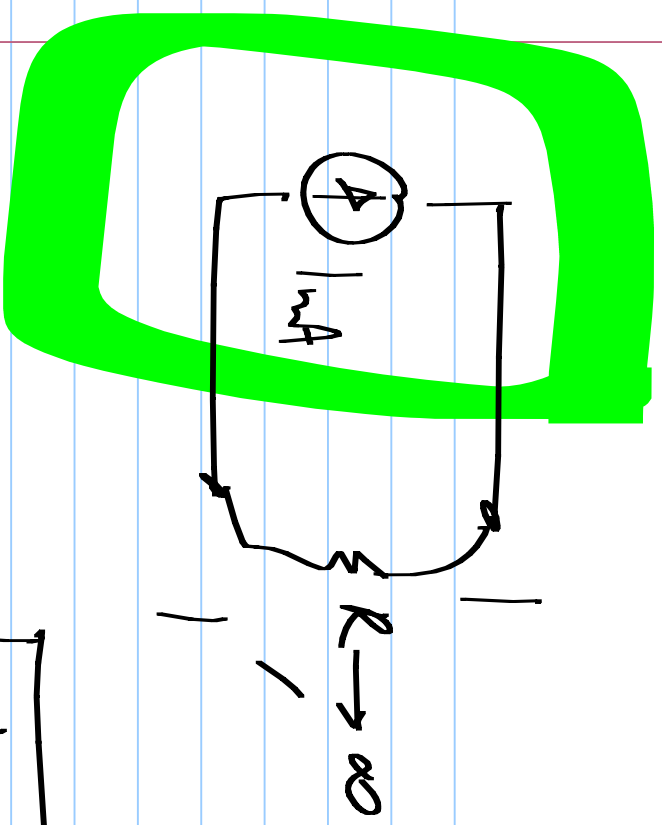


Short-circuit current
into 1-1'

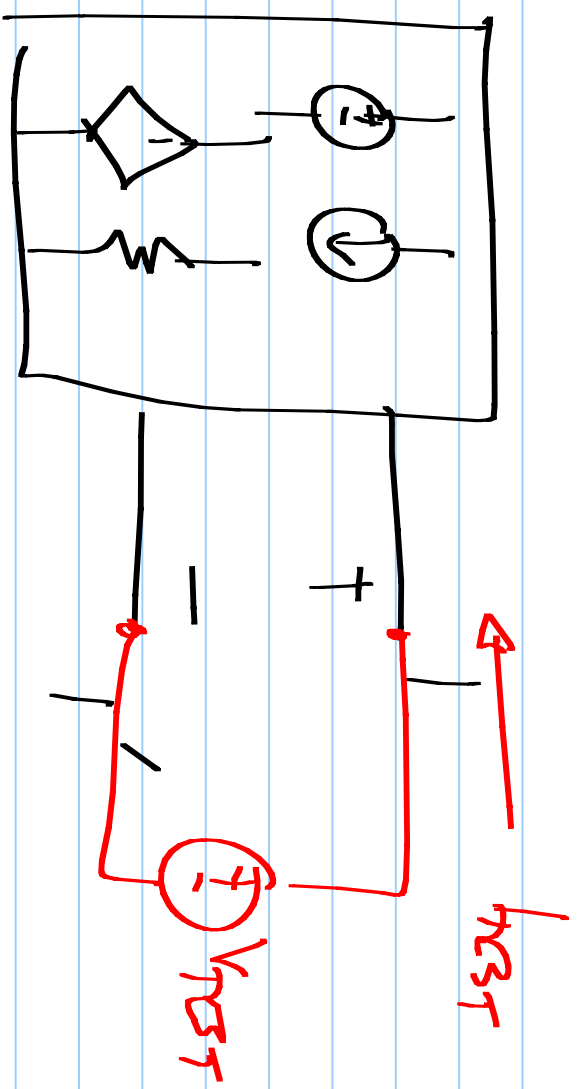


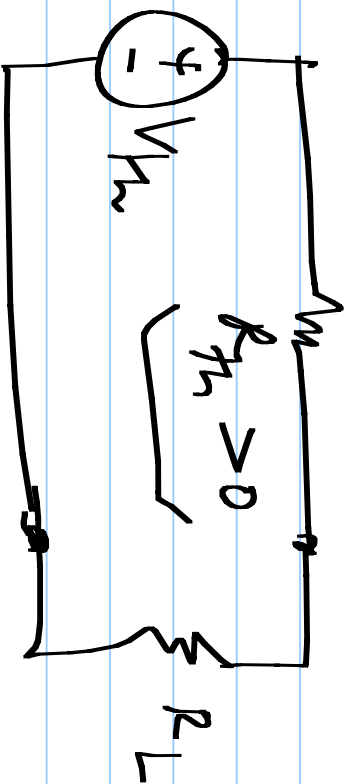
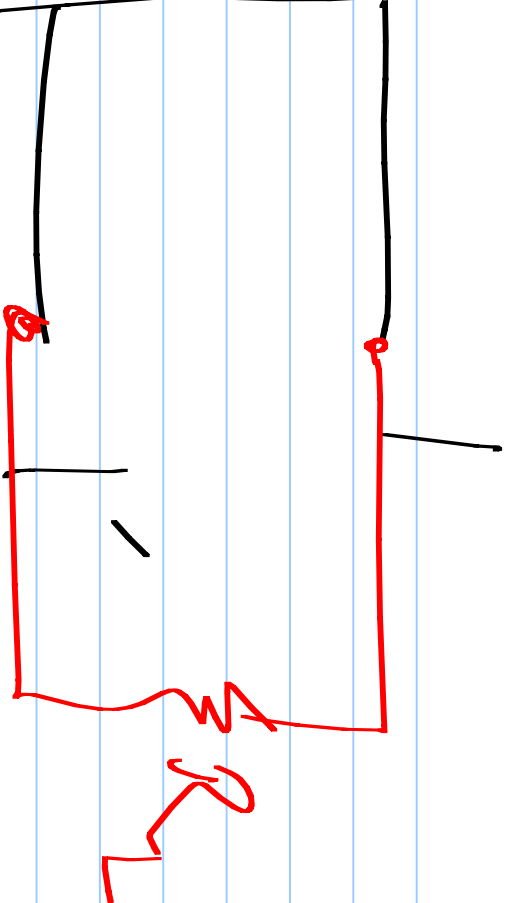
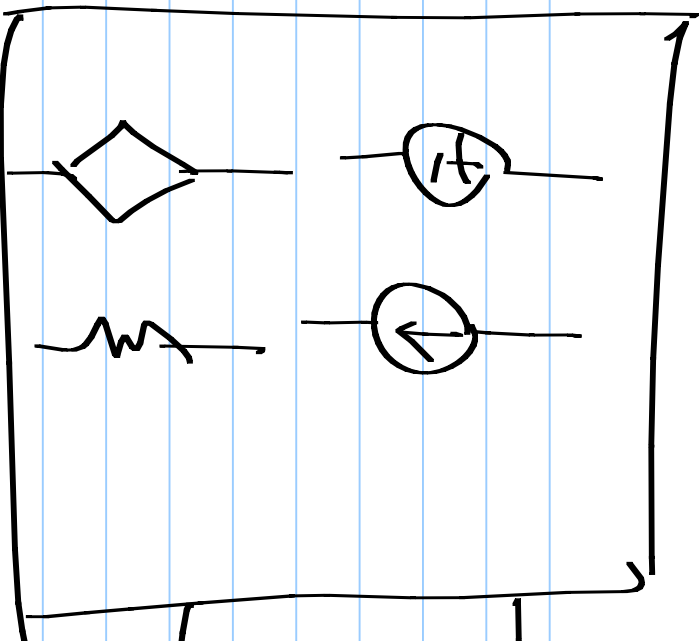
$V_{th} = 2.5V$

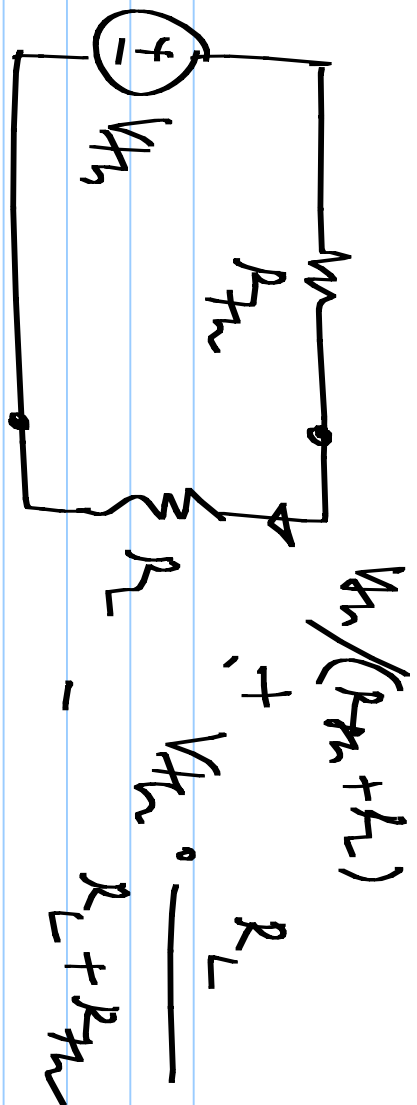




$$V_{\text{REST}} = m \cdot V_{\text{REST}} + C$$







$$P_{L, \max} = \frac{V_{th}^2}{4R_{th}}$$

$$P_L = \left(\frac{V_{th}}{R_{th}} \right)^2 \frac{R_L \cdot R_{th}}{(R_L + R_{th})^2} = \frac{V_{th}^2}{R_{th}} \frac{R_L}{\left(\sqrt{\frac{R_L}{R_{th}}} + \sqrt{\frac{R_{th}}{R_L}} \right)^2}$$

Available power

of the source P_L : maximum when $R_L = R_{th}$

