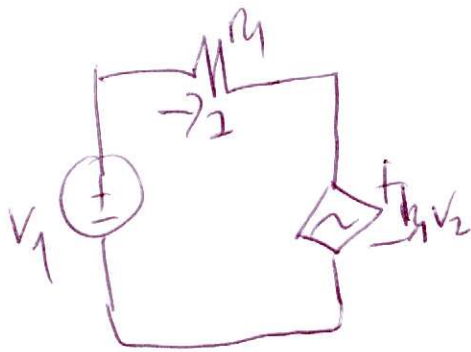


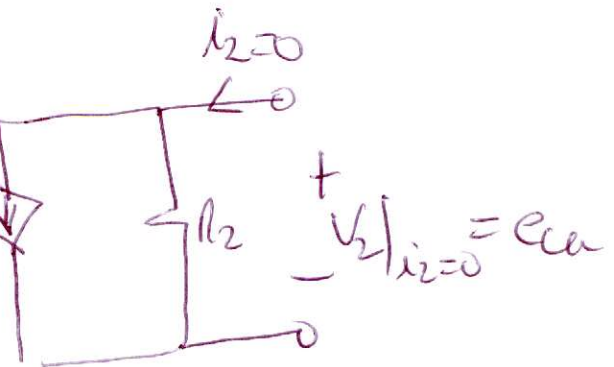
a) Circuito abierto



$$\text{LVR } V_1 = R_1 I_1 + k_1 E_{ca} \quad (1)$$

Substituyendo (2) en (1)

$$V_1 = -\frac{R_1 E_{ca}}{k_2 R_2} + k_1 E_{ca} \Rightarrow$$



$$\text{LCK } k_2 I_1 + \frac{V_2}{R_2} = 0$$

$$I_1 = -\frac{E_{ca}}{k_2 R_2} \quad (2)$$

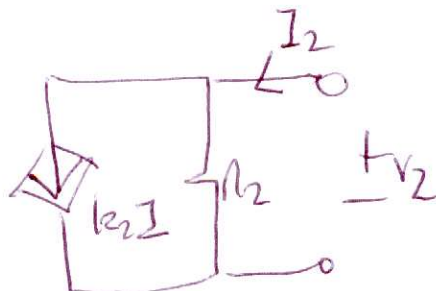
$$E_{ca} = \frac{k_2 R_2 V_1}{(k_1 k_2 R_2 - R_1)}$$

b) Red reducida



$$\text{LVR } R_1 I_1 = -k_1 V_2$$

$$I_1 = -\frac{k_1 V_2}{R_1} \quad (3)$$



$$\text{LCK } I_2 = \frac{V_2}{R_2} + k_2 I_1 \quad (4)$$

$$(3) \text{ en } (4) \quad I_2 = \left(\frac{1}{R_2} - \frac{k_1 k_2}{R_1} \right) V_2$$

$$R_{TH} = \frac{R_1 R_2}{R_1 - k_1 k_2 R_2}$$