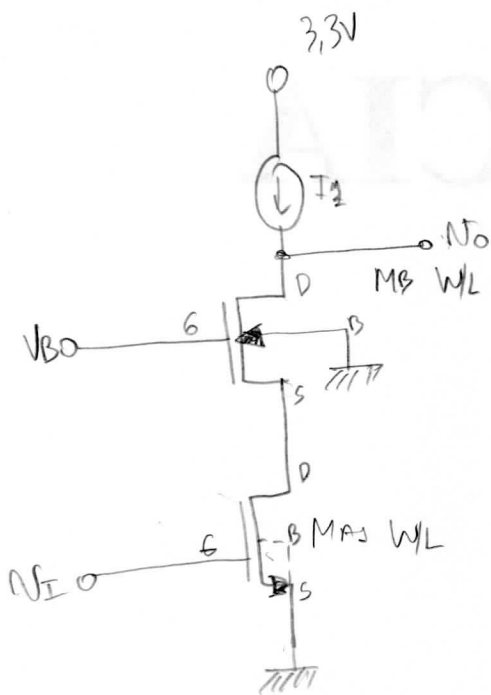
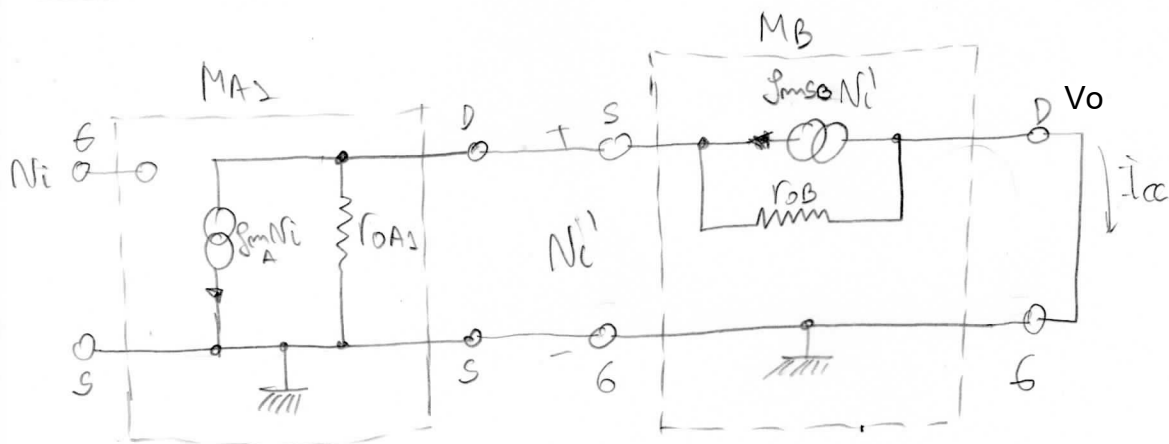


Exercício 4 BI



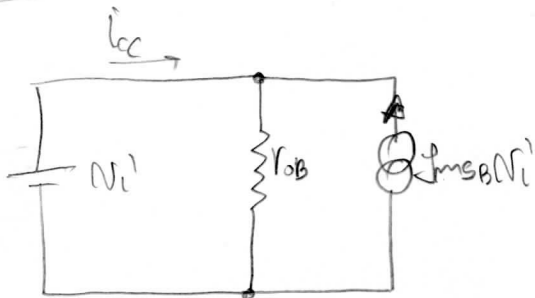
Análise de AC:



$$N_i' = -g_{mA} N_i r_{oA} \Rightarrow \left[N_i' = -\frac{g_{mA} N_i}{g_{dA}} \right]$$

$$r_{oA} = \frac{1}{g_{dA}}$$

ambiguo M_B



$$i_{CC} = \frac{N_i'}{r_{OB}} + g_{mSB} N_i'$$

$$\text{Como } N_i' = -\frac{g_{mA}}{g_{DA}} N_i \Rightarrow i_{CC} = \frac{-g_{mA}}{g_{DA} r_{OB}} N_i + g_{mSB} \left(\frac{-g_{mA}}{g_{DA}} \right) N_i$$

$$r_{OB} = \frac{1}{g_{DB}}$$

$$\rightarrow i_{CC} = -\frac{g_{mA} g_{DB}}{g_{DA}} N_i - \frac{g_{mSB} g_{mA}}{g_{DA}} N_i$$

$$\frac{i_{CC}}{N_i} = -\frac{g_{mA}}{g_{DA}} (g_{DB} + g_{mSB})$$