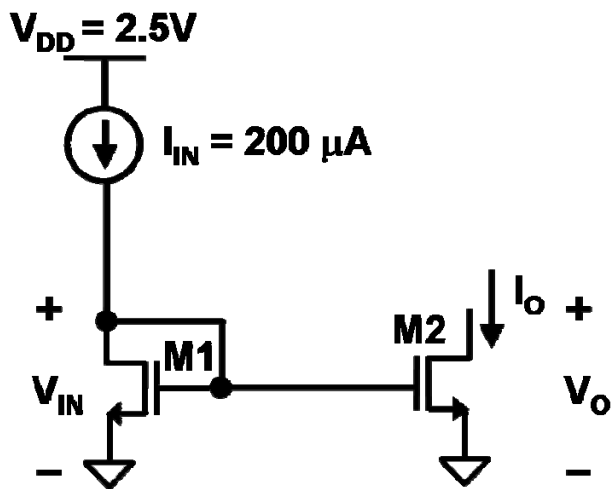


Name: _____

Lab Section: _____

Problem 1 (10 points) For the following current source, solve for the listed parameters given: $W_1 = 0.2 \mu\text{m}$, $W_2 = 0.8 \mu\text{m}$, $L_1 = L_2 = 0.1 \mu\text{m}$, $V_{T,n} = 0.8 \text{ V}$, $\mu_n C_{ox} = 400 \mu\text{A/V}^2$, $\lambda = 0.01 \text{ V}^{-1}$, $\gamma = 0$. Show all work to receive full credit and clearly state any simplifying assumptions you make.



$$V_{IN} =$$

$$I_O \text{ (at } V_O = 2.0 \text{ V)} =$$

$$V_{O, \text{MIN}} =$$

$$\text{Systematic Gain Error (at } V_O = V_{O, \text{MIN}}) =$$