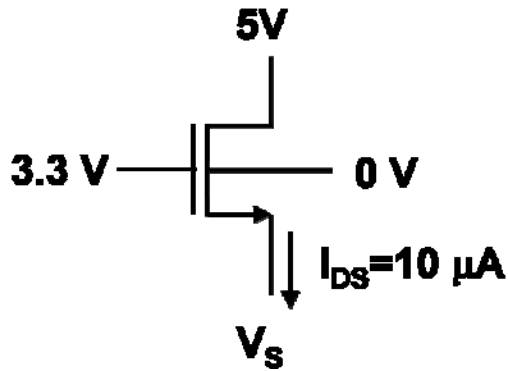


Name: _____

Lab Section: _____

Problem 1 (5 points) For the following transistor, find the value of V_S which produces the indicated I_{DS} given: $W_n = 0.5 \mu\text{m}$, $L_n = 0.1 \mu\text{m}$, $V_{T,n} = 1 \text{ V}$, $\mu_n C_{ox} = 0.5 \times 10^{-4} \text{ A/V}^2$, $\lambda = 0$, $\gamma = 0$. Show all work to receive full credit.



Problem 2 (2 points) Suppose $\lambda = 0.1 \text{ V}^{-1}$. What is the new current I_{DS} for the V_S you found above?