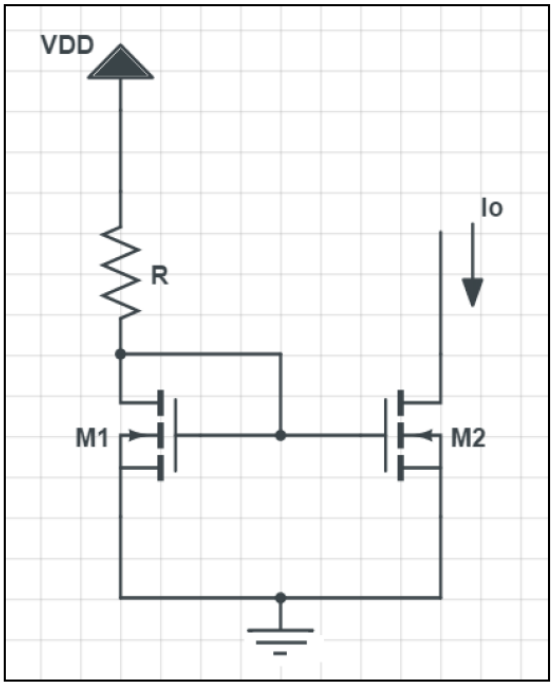
Name _____Avery Peiffer_____

ECE 0247 Quiz #7

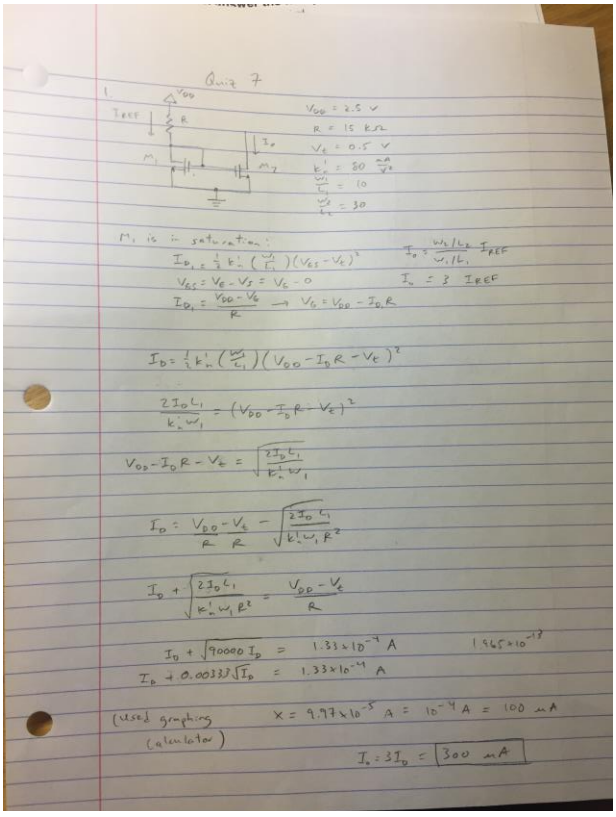


1. (8 points) For this circuit what is the value of the output current, I_o?

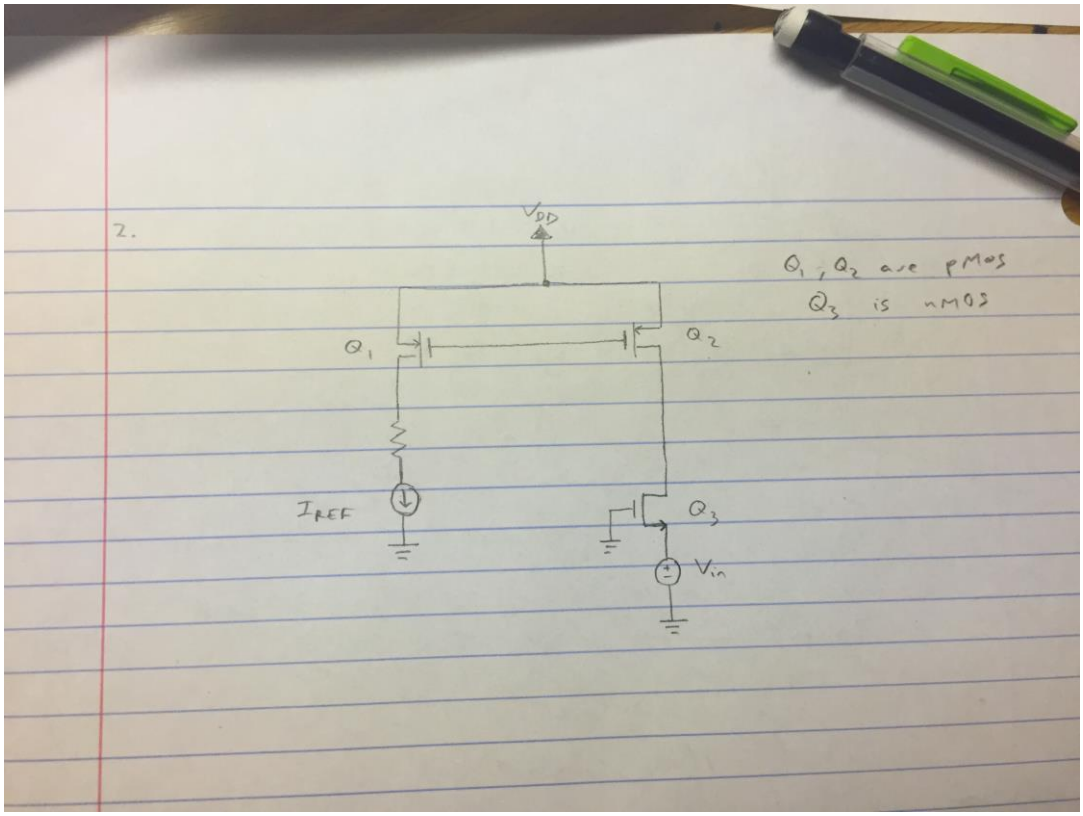
Assume that VDD = 2.5V, R = 15 kΩ, V_t = 0.5V, k'_n = 80 uA/V^2, W_1/L_1 = 10 and W_2/L_2 = 30

(Report your answer in units of μA)

I_o = 300 μA



2. (2 points) Sketch a transistor-level schematic for an active-loaded Common Gate Amplifier that uses only transistors (NMOS and/or PMOS) and no more than <u>one</u> resistor



EXTRA PAGES

[Leave the page unchanged if you are not going to use. Otherwise, specify the problem number you are working on here. Don’t forget to notify “TO BE CONTINUED” in the original problem box]