**QUIZ NO. 6**

NAME_____Score_____/10

A PMOS transistor amplifier *with two outputs* is shown. Assume the parameters of the transistor are $K_P = 1mA/V^2$, $V_{TP} = -1V$, and $\lambda = 0$. (a.) Find an algebraic expression for the small signal input resistance, $R_{in}$, the output resistances, $R_{out1}$ and $R_{out2}$, the voltage gains, $v_{out1}/v_{in}$, and, $v_{out2}/v_{in}$. (c.)



Numerically evaluate the small signal input resistance, $R_{in}$, the output resistances, $R_{out1}$ and $R_{out2}$, the voltage gains, $v_{out1}/v_{in}$, and, $v_{out2}/v_{in}$.