Report 9: MOS Characterization and Amplifiers

3.1.2 Attach your printout.

3.1.3 Approximately what criterion determines the boundary between saturation and triode?

3.1.4 Properties (Part 1)

\[ g_m = \]

\[ r_o = \]

Region of Operation:

3.1.5 Properties (Part 2)

\[ g_m = \]

\[ r_o = \]

Region of Operation:

3.2.1 Channel Length Modulation Factor

\[ \lambda/L = \]

3.2.3 Attach plot of \((I_D)^2\) vs. \(V_G\).

3.2.4 Find \(K_n\).

\[ K_n = \]

3.2.5 Find \(V_T\).

\[ V_T = \]
3.3.2 Identify the two amplifier stages.

3.2.3 Find the DC bias of $V_{IN}$ for maximum output swing. Find the gain and output swing at this bias point.

$V_{IN} =$

$A_v =$

Output Voltage Swing:

3.3.4 What problems might we run into if the resistor were too big or too small?