**Practice problems: MOS operating regions and DC solution**

In the circuits shown below, determine the operating region (cut-off, triode, or saturation) for each MOS transistors, and solve the circuits for the labeled voltages and currents.

All NMOS transistors have the same parameters:
\[
K_n = \frac{\mu_n C_{ox} W}{2} = 100 \mu A/V^2
\]

\[
V_t = 1V
\]

All PMOS transistors have the same parameters:
\[
K_p = \frac{\mu_p C_{ox} W}{2} = 100 \mu A/V^2
\]

\[
V_t = -1V
\]