Problem 1
Bias the circuit for

\[ V_{DS} = 6\text{V} \] and \[ I_D = 9\text{mA} \]

Assume the mosfet
is SAT with \[ k = 1000\mu\text{A/V}^2 \]
and \[ V_T = 2\text{V} \]. Assume

\[ I_D = k(V_{GS} - V_T)^2 \]

Problem 2
Find the gain \( V_{OLs} \) for the circuit below
Problem 3

Find the gain values for the circuit below.

Problem 4

Find $\frac{V_o}{V_s}$ for the circuit below.

Assume $I_{c1} = I_{c2}$ and $g_m_1 = g_m_2$ and $\beta_1 = \beta_2$.