**Special Problem 5.5-5**

For the transistor below:

$K = 1.0 \text{ mA/V}^2$

$V_t = 1.0 \text{ V}$

$\lambda = 0.0 \text{ V}^{-1}$

Find the **small-signal voltage gain** ( $A_v = v_o/v_i$ ) of the amplifier below.