## EE321 - Fall 2002

Homework 12

Due November 18, 2002

- 1. Problem 5.31.
- 2. Problem 5.41 (b), (d).
- Problem 5.45 (a).
  I found it hard to locate all the text for the problem. Here it is:

For the device in the circuit of Fig. P5.45 (a),  $|V_t| = 1$  V,  $\lambda = 0$ ,  $\gamma = 0$ ,  $\mu_n C_{ox} = 20 \ \mu \text{A}/\text{V}^2$ ,  $L = 1 \ \mu \text{m}$ , and  $W = 20 \ \mu \text{m}$ . Find the labeled currents and voltages.

4. Find the voltage on the drain  $(V_D)$  and the source  $(V_S)$  of the MOSFET in the following circuit, where  $V_t = 2$  V, and  $k'_n W/L = 0.25$  mA/V<sup>2</sup>.

