ECE 300
Spring Semester, 2005
HW Set #2

January 25, 2005 **Name**_____
wlg AM PM Print (last, first)

Use engineering paper. Work only on one side of the paper. Use this sheet as your cover sheet, placed on top of your work and stapled in the top left -hand corner. Number the problems at the top of the page, in the center of the sheet. **Do neat work. Underline your answers. Show how you got your equations**. **Be sure to show how you got your answers.** Each problem counts 4 points.

Study and work the Review Questions at the end of Chapter 2: You are not required to submit your solutions to these review questions.

2.10 $i_1 = 7$ A, $i_2 = -5$ A

2.16 $v_1 = 14$ V, $v_2 = 22$ V

2.18 On your own

2.22 $v_o = -4.44$ V, $P_{disp} = 99$ W

2.31 v = 10 V, I = 1 A, $P_{abs\ 4\ ohm} = 4$ W

2.33 v = 3 V, I = 6 A

2.34 $i_1 = 2$ A, $i_2 = 0.24$ A, $v_1 = 12$ V, $v_2 = 3.12$ V

2.40 $R_{eq} = 5$ ohms, I = 2 A

2.43 (a) $R_{ab} = 12$ ohms, (b) $R_{ab} = 16$ ohms

2.56 v = 42.18 V

2.58 $V_S = 210$ V

2.64 R = 11 ohms, $R_x = 99$ ohms

2.77 (a) 4 @ 20 in parallel

(b) 300 ohms in series with 1.8 ohms and a parallel combination of two 20 ohms resistors

(c) two 29 k ohms in parallel, connected in series with 2, 50 k ohms in parallel