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 5 points.

Review Questions: Suggested study. Do not turn this in.

1.6 (a) 40 A, (b) 0 A, (c) –20 A

1.17 \( p_3 = 70 \text{ W} \)

1.18 \( p_1 = -300 \text{ W}, \ p_2 = 100 \text{ W}, \ p_3 = 280 \text{ W}, \ p_4 = -32 \text{ W}, \ p_5 = -48 \text{ W} \)

1.19 Hint: sum of power = 0: \( I_s = 3 \text{ A} \)

1.20 \( V_o = 18 \text{ V} \)

1.23 (a) 12.5 A, (b) 1.125 kWhr, (c) Cost = 11.25 cents

1.24 \( P = 880 \text{ W} \)

1.32 \( 750 \times 10^3 \text{ hrs} \)

1.35 \( 2.333 \text{ MWhrs} \)

1.36 (a) 4 A, (b) \( t = 6,667 \text{ days} \)