

## Recitation

### Circuits

In your workbook, complete items 23-27 found in **21.7-21.9 Capacitance and Capacitors; Dielectrics and Capacitors;** and **Energy and Capacitors.**

In your workbook, complete items 1-8, 14-16 found in **22.1-21.2 A model of Current;** and **Defining and Describing Current** and **22.5 Ohm's Law and Resistor Circuits.**

Additional Problems:

1. Repeat item 16 in your workbook, except rank the power,  $P_1 - P_4$ , dissipated by the four resistors, from largest to smallest.
  
2. You are provided two light bulbs.  $R_1 = 144 \Omega$  and  $R_2 = 240 \Omega$ .
  - a. Predict which bulb you expect to be brighter or if there's not enough information to do so. Explain why.
  
  - b. If 120V is supplied to each bulb, find the power dissipated by each bulb.
  
  - c. If 120V is supplied to each bulb, which bulb will appear brighter?
  
  - d. If 120 V is supplied to each bulb, what is the current through each bulb?
  
  - e. If 9 V is supplied to each bulb, find the power dissipated by each bulb.

- f. If 9 is supplied to each bulb, which bulb will appear brighter? How do they compare to the brightness when 120V was supplied to the bulbs?
- g. If 0.3 A is supplied to each bulb, which will appear brighter?