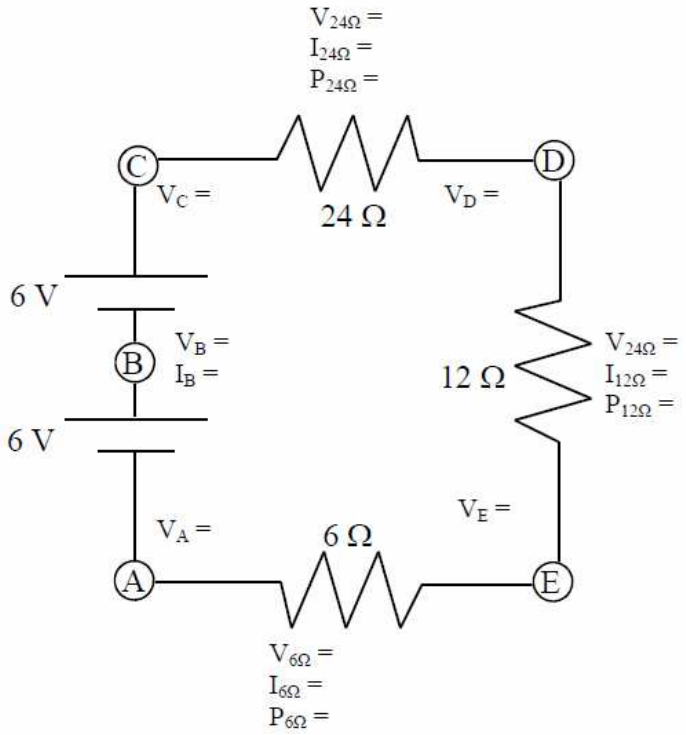
Series Circuit Practice

V = IR **P = VI**

1. What is the total voltage?
2. What is the total resistance?
3. Calculate the total current.
4. Where in the circuit is the current the greatest?
5. If one of the batteries is removed, how would the current change?
6. If one of the resistors is decreased, how would the current change?
7. On the circuit, calculate the voltage and power used by each resistor.
8. How much voltage is used by the 12 Ω resistor?
9. What is the voltage at point D?
10. How much power is used by the whole circuit?



Parallel Circuit Lab—Calculations 1

1. What is the total voltage?
2. How does the voltage change across a wire?
3. What is the voltage at E?
4. What is the voltage at F?
5. What is the voltage at H?
6. A. Which resistor has the greatest voltage across it?
   B. Why?
7. Which resistor has the greatest current?
8. Calculate the current in each branch.
   Label each current with an arrow.
9. What is the current from D to I?
10. What is the current flowing from I to A?
11. What is the total current?
12. Using the total voltage and total current, calculate the total resistance.
13. Since P = VI, calculate the power used by the 9 Ω resistor.
14. Calculate the total power used by the circuit.