

Circle Recitation Time: W1:30 W2:30 H8:30 H9:30 H10:30 H12:30 H1:30 H2:30

Physics 151 Worksheet #14: Electric Circuits

Name: _____

Partner(s): _____

Directions : This recitation will make use of some applets from the set entitled Interactive Physics and Math with Java. They allow you to experiment with simple circuits

Simulation #1: Two-Resistor Circuit

Calculate the current and the voltage drop for each resistor in the circuit. You should clearly show the formulas and calculation used to determine the answers and then use the applet to check your answers.

Simulation #2: Four-Resistor Circuit

Four resistors are connected to a 9V battery as shown to the right. Determine the current and the voltage drop for each resistor in the circuit -- what would the ammeter shown as an oval and the voltmeters shown as rectangles read?

Simulation #3: Three-Resistor Circuit

Replace the $8\ \Omega$ resistor with a line and then determine the current and the voltage drop for each of the three resistors in the circuit.