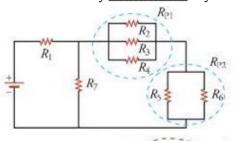
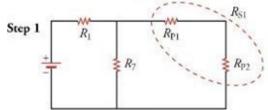
Physics 08-04 Circuits in Parallel and Series

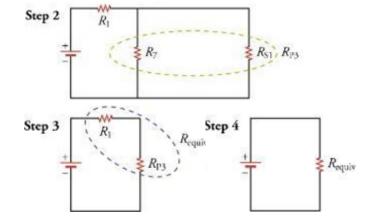
Name: _

Circuits Wired Partially in Series and Partially in Parallel

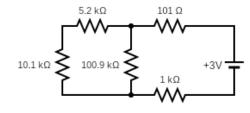
- 1. Simplify any _____ portions of each _____
- 2. Simplify the _____ circuitry of the _____
- 3. If necessary _____ any remaining ____



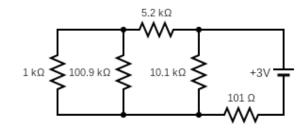




Find the equivalent resistance and the total current of the following circuit.



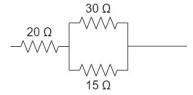
Find the equivalent resistance.



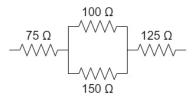
Physics 08-04 Circuits in Parallel and Series

Practice Work

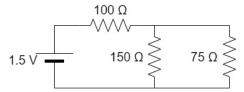
- 1. How do you know where a branch of the circuit starts and ends?
- 2. Describe the general process of finding the equivalent resistance of circuits in a combination of series and parallel.
- 3. Find the equivalent resistance of the circuit. (RW) 30Ω



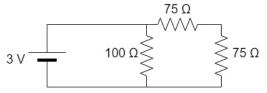
4. Find the equivalent resistance of the circuit. (RW) 260Ω



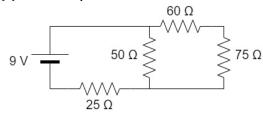
5. Find the equivalent resistance of the circuit. (RW) 150Ω



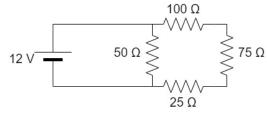
6. Find the equivalent resistance of the circuit. (RW) 60Ω



7. (a) Find the equivalent resistance of the circuit. (b) What is the total current in the circuit? (RW) 61.5Ω , 0.146 A



8. (a) Find the equivalent resistance of the circuit. (b) What is the current through the 50 Ω resistor? (RW) **40** Ω , **0.24** A



9. (a) Find the equivalent resistance of the circuit. (b) What is the current through the 100 Ω resistor? (c) What is the voltage drop over the 100 Ω resistor? (RW) **51.2** Ω , **0.0426** A, **4.26** V

