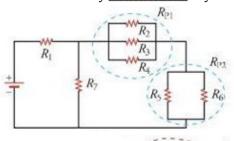
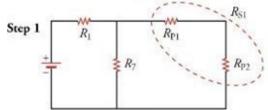
Physics 08-04 Circuits in Parallel and Series

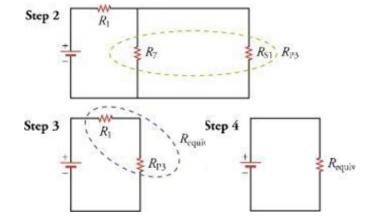
Name: _

Circuits Wired Partially in Series and Partially in Parallel

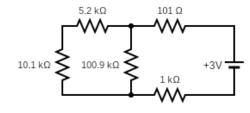
- 1. Simplify any _____ portions of each _____
- 2. Simplify the _____ circuitry of the _____
- 3. If necessary _____ any remaining ____



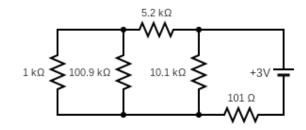




Find the equivalent resistance and the total current of the following circuit.



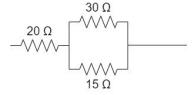
Find the equivalent resistance.



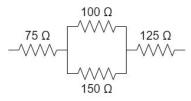
Physics 08-04 Circuits in Parallel and Series

Practice Work

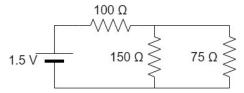
- 1. How do you know where a branch of the circuit starts and ends?
- 2. Describe the general process of finding the equivalent resistance of circuits in a combination of series and parallel.
- 3. Find the equivalent resistance of the circuit. (RW) 30Ω



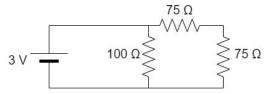
4. Find the equivalent resistance of the circuit. (RW) 260Ω



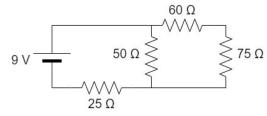
5. Find the equivalent resistance of the circuit. (RW) $150\Omega\,$



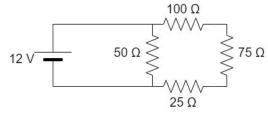
6. Find the equivalent resistance of the circuit. (RW) 60Ω



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) **65.5** Ω , **0.0568** A, **5.68** V

