

SECTION REVIEW

- Find the equivalent resistance of the complex circuit shown in **Figure 19**.

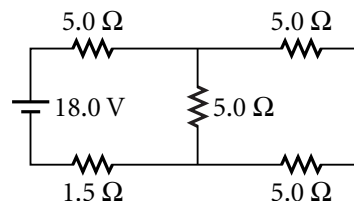


Figure 19

- What is the current in the $1.5\ \Omega$ resistor in the complex circuit shown in **Figure 19**?
- What is the potential difference across the $1.5\ \Omega$ resistor in the circuit shown in **Figure 19**?
- A certain strand of miniature lights contains 35 bulbs wired in series, with each bulb having a resistance of $15.0\ \Omega$. What is the equivalent resistance when three such strands are connected in parallel across a potential difference of $120.0\ \text{V}$?
- What is the current in and potential difference across each of the bulbs in the strands of lights described in item 4?
- If one of the bulbs in one of the three strands of lights in item 4 goes out while the other bulbs in that strand remain lit, what is the current in and potential difference across each of the lit bulbs in that strand?
- Interpreting Graphics** **Figure 20** depicts a household circuit containing several appliances and a circuit breaker attached to a $120\ \text{V}$ source of potential difference.
 - Is the current in the toaster equal to the current in the microwave?
 - Is the potential difference across the microwave equal to the potential difference across the popcorn popper?
 - Is the current in the circuit breaker equal to the total current in all of the appliances combined?
 - Determine the equivalent resistance for the circuit.
 - Determine how much current is in the toaster.

extension

Integrating Health

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Keyword
HF6CIRX

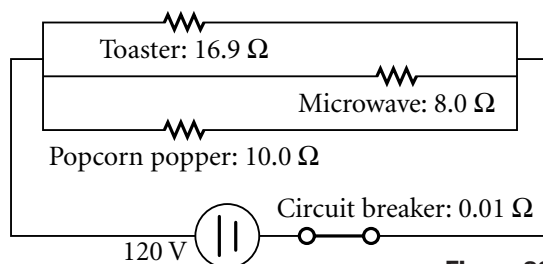


Figure 20