

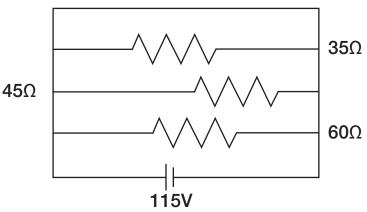
Personal Tutor Activity 8.1 – Joule and Electron Volt

- 1. **Apply** In working a design problem, Jeff has been told that the work done on a specific piece of equipment is 130 Joules. Now he converts this into units of energy to complete the analysis of the problem he has been given. Convert the value expressed from Joules to Electron Volts.
- 2. Starting Hint Write out the equation first, and then write the numbers you know underneath each part.

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Personal Tutor Activity 8.2 – Resistance and Current in a Parallel Circuit

1. **Apply** Sara, a first-year engineer, has been given a basic electrical engineering problem regarding parallel circuits. Her boss has given her a design of a new product, including a schematic (shown below) of the circuit. Sara must calculate the total current and equivalent resistance of the circuit in the schematic.



2. Starting Hint Write out the equation first, and then write the numbers you know underneath each part.