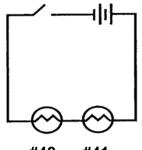
Name

Electrical Circuits Quiz #5

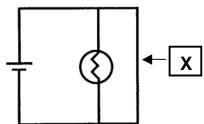
Circle the letter of the correct answer for Questions 1 - 3.

- 1. When the switch is closed in the circuit below, which of the statements is true? Remember, a #40 bulb has a thinner filament than a #41 bulb.
  - A. Only the #40 bulb lights.
  - B. Only the #41 bulb lights.
  - C. Both bulbs light.
  - D. Neither bulb lights.



#40 #41

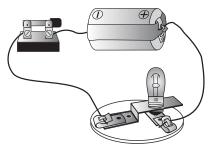
- 2. The purpose of a fuse is
  - A. to prevent the lights from going out.
  - B. to connect two wires together.
  - C. to act as a safeguard.
  - D. to conserve energy.
- 3. The bulb in the circuit below does not light because wire X
  - A. is too long.
  - B. has the same resistance as the bulb.
  - C. has more resistance than the bulb.
  - D. has less resistance than the bulb.



4. Explain why a highly resistant wire, such as Nichrome wire, would be used in an electrical heater?

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5. The diagram below shows an electrical circuit.



What kind of energy from the battery is changed into electrical energy?

\_\_energy

6. When the flashlight is turned on, electrical energy is changed to which types of energy?



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7. Explain the energy transformation that takes place in the model heater.

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