Automotive Electrical and Engine Performance, 8th Edition Chapter 3
Name
SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.
1) Why is copper used for wire in vehicles?
2) What are ampere, volt, and ohm?
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3) What is electricity?
4) What are the three examples of conductors and three materials that are insulators?
5) What are five sources of electricity?
6) What is the relationship between the length of a wire and its resistance?

## Answer Key

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1) Copper is the conductor most used in vehicles because the price of copper is reasonable compared to the relative cost of other conductors with similar properties.

Page Ref: 55

2) An ampere is the unit of the amount of current flow; a volt is a unit of electrical pressure and an ohm is a unit of electrical resistance.

Page Ref: 57-58

3) Electricity is the movement of electrons from one atom to another.

Page Ref: 53

4) Conductors include steel, iron, copper, aluminum, mercury, brass, and all other metals.

Page Ref: 55-56

5) Sources of electricity include friction, heat, light, pressure, and chemistry.

Page Ref: 59

6) If the conductor length is doubled, its resistance doubles. If the conductor diameter is increased, its resistance is reduced. As the temperature increases, the resistance of the conductor also increases.

Page Ref: 60