

# Section 1 Review

8.7.c



## SECTION VOCABULARY

**element** a substance that cannot be separated or broken down into simpler substances by chemical means

**metal** an element that is shiny and conducts heat and electricity well

**metalloid** an element that has properties of both metals and nonmetals

**nonmetal** an element that conducts heat and electricity poorly

**pure substance** a sample of matter, either a single element or a single compound, that has definite chemical and physical properties

**1. Compare** How does the ability to conduct heat differ between metals and nonmetals?

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**2. Classify** Fill in the blanks to complete the table.

Element	Property	Classification
Copper	shiny solid	
Oxygen	gas	
Silicon	Electrical conductivity varies, depending on conditions.	

**3. Evaluate Assumptions** Your friend tells you that all of the electric wires in your home are metals. From what you know about elements, tell whether or not this statement is true. Explain your answer.

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**4. Apply Concepts** Several elements are used between the panes of glass in double windows designed to block heat flow. From what category are these elements chosen. How do you know?

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**5. Make Calculations** Two elements, hydrogen and helium, make up most of the atoms in the universe: 92.7% of atoms are hydrogen, and 6.9% of atoms are helium. What percentage of atoms in the universe is neither hydrogen nor helium? Show your work.