

## Section Review

---

### Covalent and Metallic Bonds

#### USING KEY TERMS

1. Use each of the following terms in a separate sentence: *covalent bond* and *metallic bond*.

---

---

2. In your own words, write a definition for the term *molecule*.

---

---

#### UNDERSTANDING KEY IDEAS

- \_\_\_\_\_ 3. Between which of the following atoms is a covalent bond most likely to occur?
- a. calcium and lithium
  - b. sodium and fluorine
  - c. nitrogen and oxygen
  - d. helium and argon

4. What happens to the electrons in covalent bonding?

---

---

5. How many dots does an electron-dot diagram of a sulfur atom have?

---

---

6. List three properties of metals that are a result of metallic bonds.

---

---

7. Describe how the valence electrons in a metal move.

---

---

**Section Review** *continued*

8. Explain the difference between ductility and malleability. Give an example of when each property is useful.

---

---

---

**CRITICAL THINKING**

9. **Identifying Relationships** How do the metallic bonds in a staple allow it to function properly?

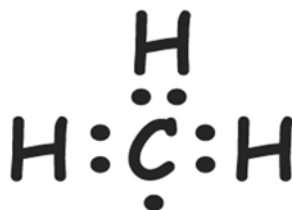
---

---

10. **Applying Concepts** Draw an electron-dot diagram for ammonia (a nitrogen atom covalently bonded to three hydrogen atoms).

**INTERPRETING GRAPHICS**

11. This electron-dot diagram is not complete. Which atom needs to form another bond? Explain.



---

---

---