

SECTION 2-1 REVIEW

COMPOSITION OF MATTER

VOCABULARY REVIEW Define the following terms.

1. atom _____

2. neutron _____

3. compound _____

4. covalent bond _____

5. ion _____

MULTIPLE CHOICE Write the correct letter in the blank.

- _____ 1. The atomic number of carbon is 6. Therefore, the number of protons in a carbon atom equals
a. 3. b. 6. c. 7. d. 12.
- _____ 2. One of the kinds of particles found in the nucleus of an atom is the
a. proton. b. electron. c. ion. d. boron.
- _____ 3. The maximum number of electrons that can be held in an atom's second energy level is
a. 2. b. 4. c. 6. d. 8.
- _____ 4. Of the following elements, the one that is most likely to form ionic bonds is
a. hydrogen. b. carbon. c. sodium. d. oxygen.
- _____ 5. An example of a compound is
a. water. b. hydrogen gas. c. oxygen gas. d. chloride ion.

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SHORT ANSWER Answer the questions in the space provided.

1. What is the difference between mass and weight? _____

2. Identify the elements and the number of atoms of each element in each of the following compounds:

BO_2 _____ KCl _____

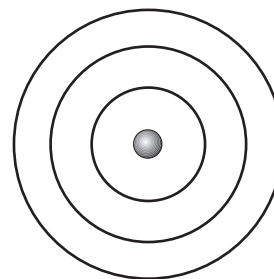
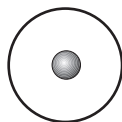
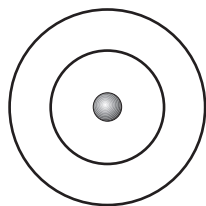
$\text{C}_6\text{H}_{12}\text{O}_6$ _____ NH_3 _____

3. How many pairs of electrons do the two oxygen atoms in an oxygen molecule share with each other? Explain your answer. _____

4. **Critical Thinking** The atomic number of argon is 18. Will argon tend to form bonds with other elements? Explain your answer. _____

STRUCTURES AND FUNCTIONS Label each atom in the spaces provided, and complete the models by drawing the correct number of electrons at each energy level.

The diagrams below represent incomplete models of the atoms helium (atomic number 2), carbon (atomic number 6), and sulfur (atomic number 16). Note: The third energy level can contain up to eight electrons.



a _____

b _____

c _____