

REVIEW

2

SECTION 2.1

What Is Matter?

1. **Classify** the following as a homogeneous, *O*, or a heterogeneous, *E*, mixture.

- | | | | |
|-------|-----------------------------|-------|--------------------|
| _____ | a. a pail of sand and water | _____ | d. a banana split |
| _____ | b. air | _____ | e. chocolate syrup |
| _____ | c. human blood | _____ | f. sea water |

2. **Compare and contrast** atoms and molecules.

3. **Explain** the difference between a pure substance and a homogeneous mixture.

4. **Classify** each of the following as an element or a compound.

- | | |
|-------|-------------------------|
| _____ | a. benzene, C_6H_6 |
| _____ | b. aluminum, Al |
| _____ | c. aspirin, $C_9H_8O_4$ |
| _____ | d. titanium, Ti |
| _____ | e. acetylene, C_2H_2 |
| _____ | f. zinc, Zn |

5. **Explain** why elements and compounds are pure substances.

6. **Determine** which of the following are pure substances and which are mixtures.

- | | |
|-------|---------------------------------|
| _____ | a. salt water |
| _____ | b. isopropyl alcohol, C_3H_8O |
| _____ | c. mercury, Hg |
| _____ | d. ammonia, NH_3 |
| _____ | e. an egg yolk |
| _____ | f. honey |

Elements, Compounds, and Mixtures

Classify each of the pictures below by placing the correct label in the blanks below:

A= Element

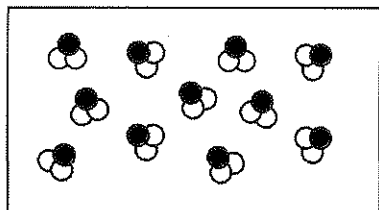
D= Mixture of compounds

B= Compound

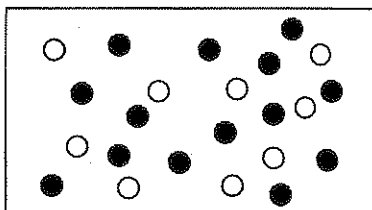
E= Mixture of elements and compounds

C= Mixture of elements

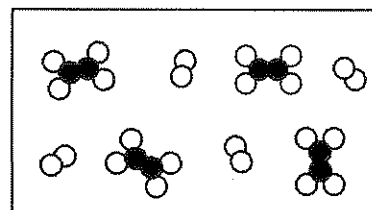
Each circle represents an atom and each different color represents a different kind of atom. If two atoms are touching then they are bonded together.



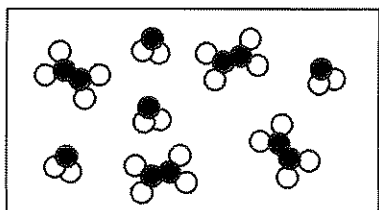
1) _____



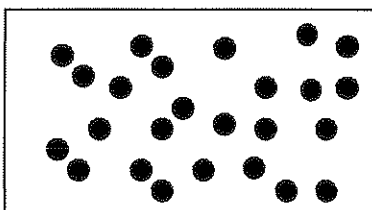
2) _____



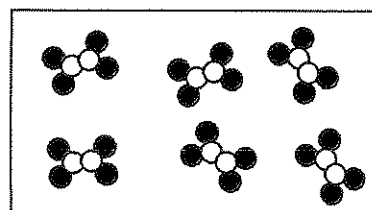
3) _____



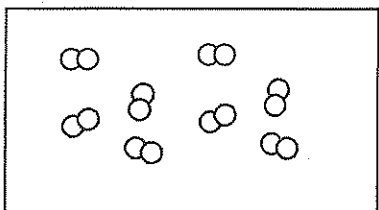
4) _____



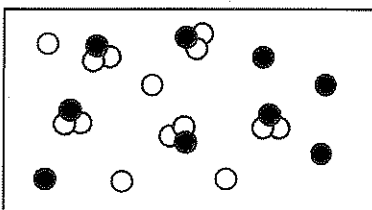
5) _____



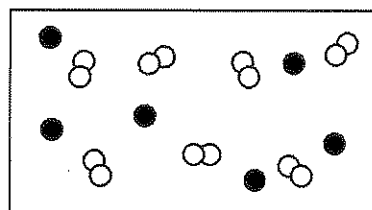
6) _____



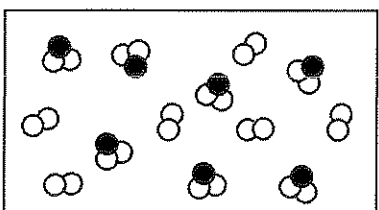
7) _____



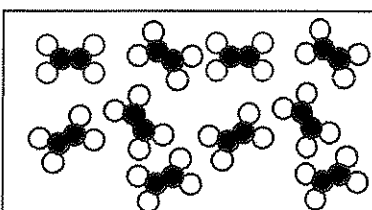
8) _____



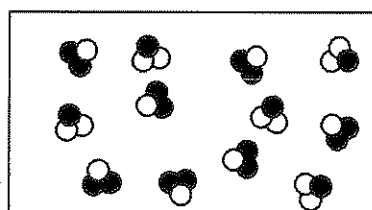
9) _____



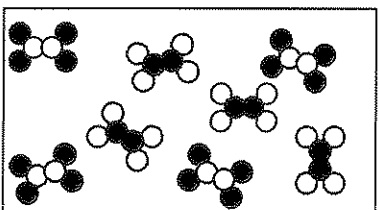
10) _____



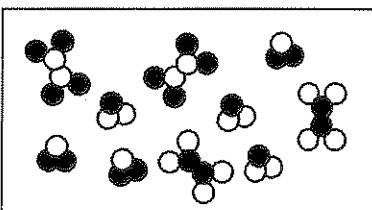
11) _____



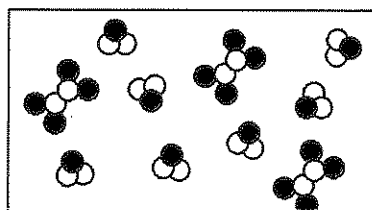
12) _____



13) _____



14) _____



15) _____