

CLASSIFICATION OF MATTER WORKSHEET

Pure substances vs. mixtures

A. Classify the following as pure substances (element or compound) or mixtures.

- | | |
|-------------------|------------------------|
| 1. Sodium | 8. Air |
| 2. Water | 9. Chicken noodle soup |
| 3. Soil | 10. Iron |
| 4. Coffee | 11. Salt water |
| 5. Oxygen | 12. Eggs |
| 6. Carbon dioxide | 13. Blood |
| 7. Cake batter | 14. Nail polish |

Homogeneous vs. heterogeneous matter

B. Classify the following types of matter as either homogeneous or heterogeneous.

- | | |
|-----------------------------|----------------------------|
| 1. Carbonated soft drink | 9. Air |
| 2. Chocolate chip ice cream | 10. Paint |
| 3. Italian salad dressing | 11. Rubbing alcohol |
| 4. Corn syrup | 12. Full fat milk |
| 5. Soil | 13. Beach sand |
| 6. Aluminum foil | 14. Pure air |
| 7. Black coffee | 15. Chunky spaghetti sauce |
| 8. Sugar water | 16. Bubble tea |

C. Choose the correct answer.

1. The smallest unit of all chemical elements is atom/substance.
2. A mixture is/is not a chemical combining of substances.
3. An element can/cannot be broken down into a simpler substance.
4. Iron sulphate is an element/compound.
5. In a mixture, the substances lose/retain their identities.

D. From the following list of substances, circle the ones that are ELEMENTS.

Silver carbon	Carbon dioxide	Alcohol chromium
Water	Hydrogen	Carbon nitrogen
Oxygen	Gold	Sugar
Salt	Air	Sulfur
Magnesium	Nickel	Aluminum

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

A = Element

D = Mixture of compounds

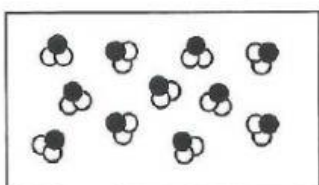
B = Compound

E = Mixture of elements and compound

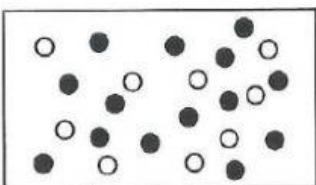
C = Mixture of elements

Each circle represents an atom and each different color represents a different kind of atom.

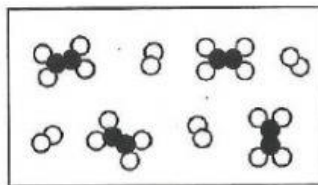
If two atoms are touching then they are bonded together.



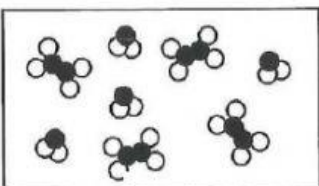
1) _____



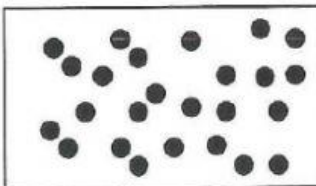
2) _____



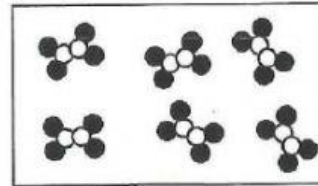
3) _____



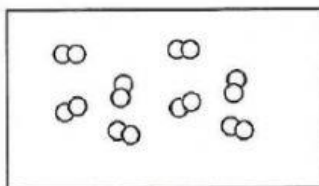
4) _____



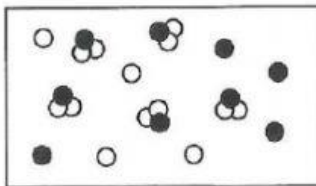
5) _____



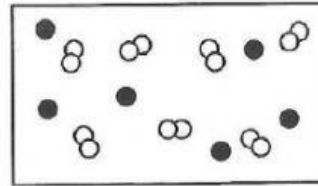
6) _____



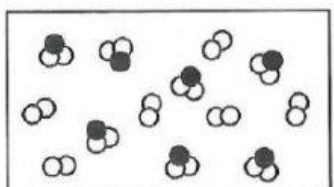
7) _____



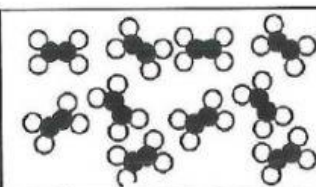
8) _____



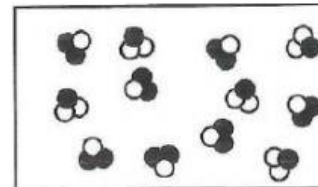
9) _____



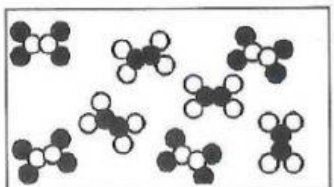
10) _____



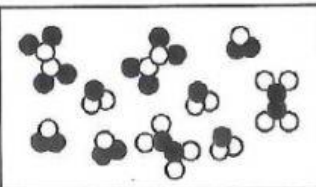
11) _____



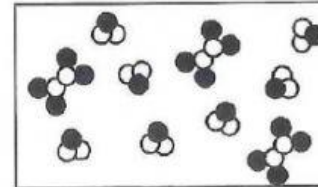
12) _____



13) _____



14) _____



15) _____