

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

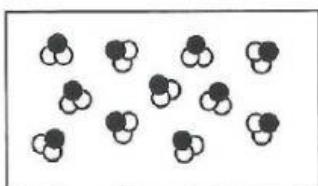
B = Compound

E = Mixture of elements and compound

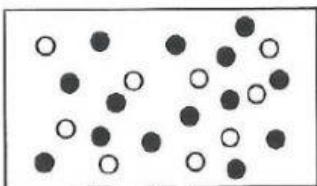
C = Mixture of elements

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

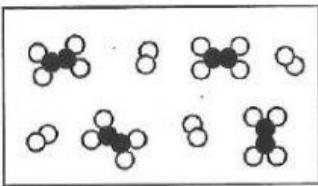
If two atoms are touching then they are bonded together.



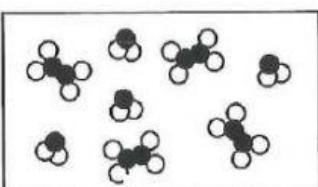
1) _____



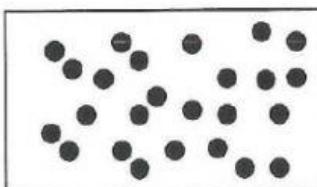
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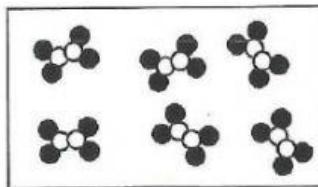
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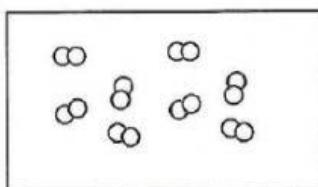
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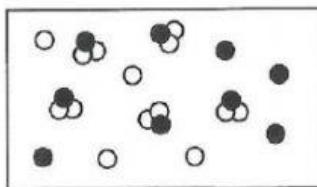
5) _____



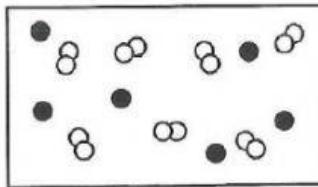
6) _____



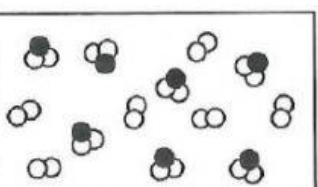
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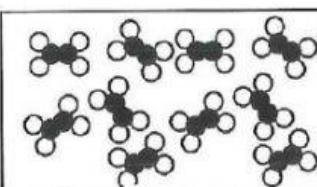
8) _____



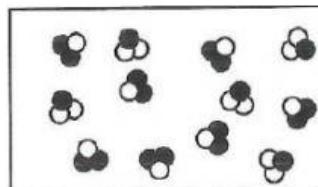
9) _____



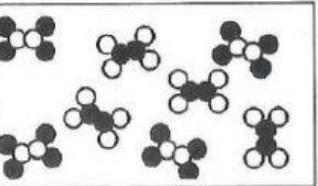
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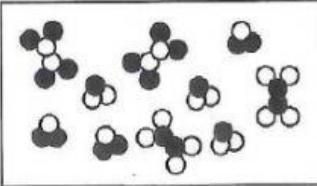
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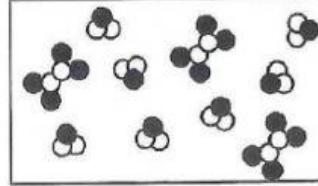
12) _____



13) _____



14) _____



15) _____