

Name: _____
 Hour: _____ Date: _____

Chemistry: *Classifying Matter*

Classify each of the materials below. In the center column, state whether the material is a **pure substance** or a **mixture**. If the material is a pure substance, further classify it as either an **element** or **compound** in the right column. Similarly, if the material is a mixture, further classify it as **homogeneous** or **heterogeneous** in the right column. Write the entire word in each space to earn full credit.

<i>Material</i>	<i>Pure Substance or Mixture</i>	<i>Element, Compound, Homogeneous, Heterogeneous</i>
concrete	M	He / Ho
sugar + pure water ($C_{12}H_{22}O_{11} + H_2O$)	M	Ho
iron filings (Fe)	PS	E
limestone ($CaCO_3$)	PS	C
orange juice (w/pulp)	M	He
Pacific Ocean	M	Ho / He
air inside a balloon	M	Ho
aluminum (Al)	PS	E
magnesium (Mg)	PS	E
acetylene (C_2H_2)	PS	C
tap water in a glass	M	Ho
soil	M	He
pure water (H_2O)	PS	C
chromium (Cr)	PS	E
Chex mix	M	He
salt + pure water ($NaCl + H_2O$)	M	Ho
benzene (C_6H_6)	PS	C
muddy water	M	He
brass (Cu mixed with Zn)	M	Ho
baking soda ($NaHCO_3$)	PS	C

Elements, Compounds, and Mixtures

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

A= Element

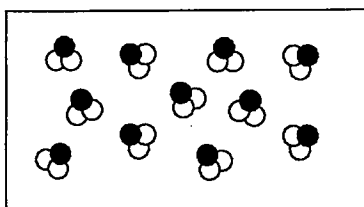
D= Mixture of compounds

B= Compound

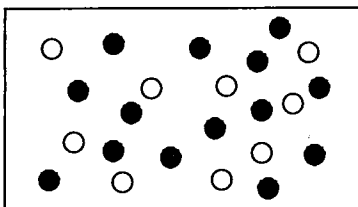
E= Mixture of elements and compounds

C= Mixture of elements

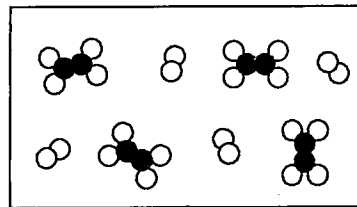
Each circle represents an atom and each different color represents a different kind of atom. If two atoms are touching then they are bonded together.



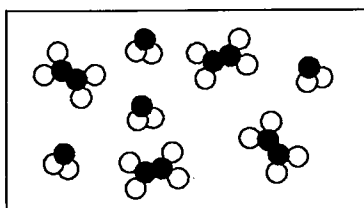
1) B



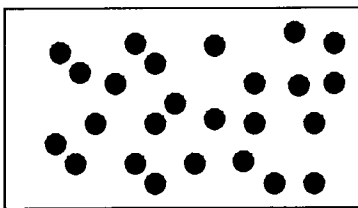
2) C



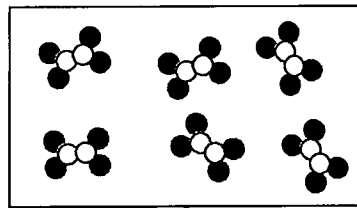
3) E



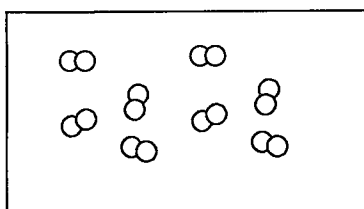
4) D



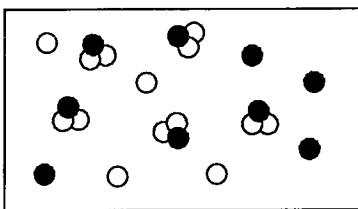
5) A



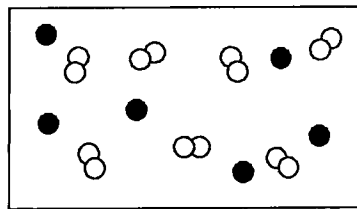
6) B



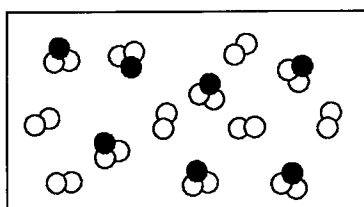
7) A



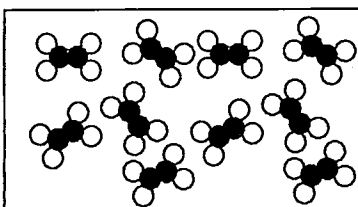
8) E



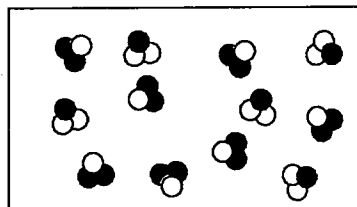
9) C



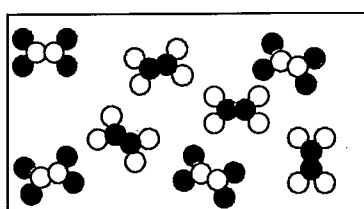
10) E



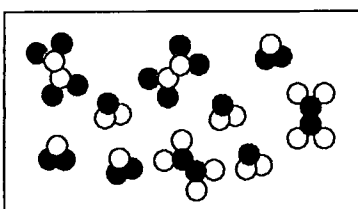
11) B



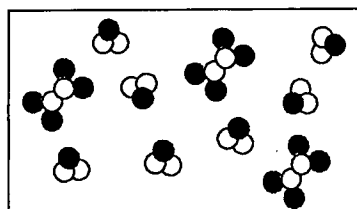
12) D



13) D



14) D



15) D