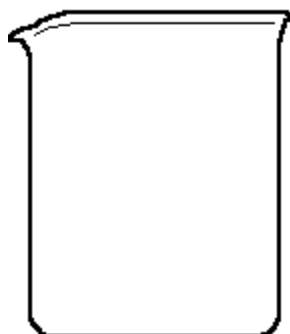


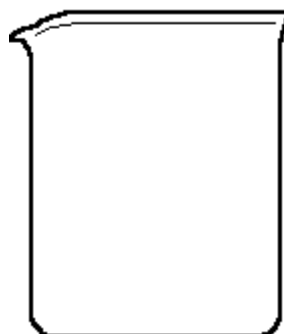
Mixtures, Elements, and Compounds

I. Mixtures

A. Observe the demonstration and list the substances in each beaker.



A



B

1. Describe how each beaker is similar and different.

2. Define: Mixture -

B. Types of Mixtures

1. Define:

a. Homo -

b. Hetero-

2. One of the beakers above contains a homogeneous mixture and the other contains a heterogeneous mixture. What type of mixture is in beaker A and Beaker B? Explain your answer.

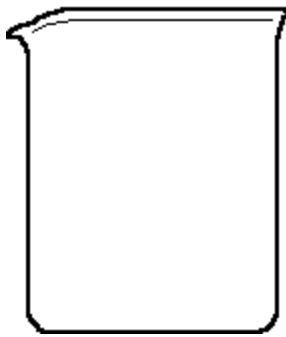
3. Define:

a. **Homogeneous Mixture -**

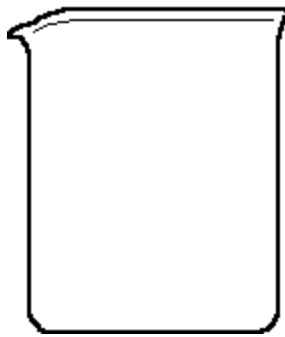
b. **Heterogeneous mixture -**

C. Solutions

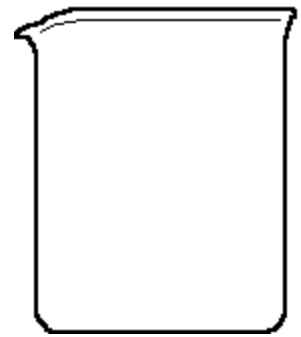
1. **Observe the demonstration and list the substances in each beaker.**



A



B



C

2. **Describe how the beakers are similar and different.**

3. **Each beaker above contains a solution. Every solution contains at least two parts: the solvent and the solute. Try to identify the solvent and solute in each beaker above.**

4. Define:

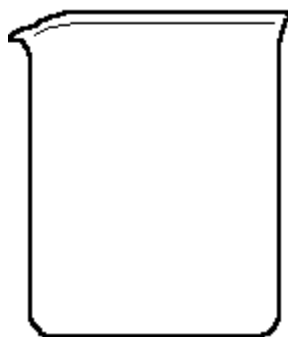
a. Solution -

b. Solvent -

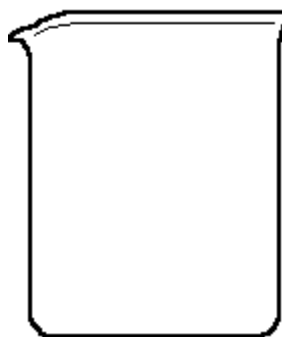
c. Solute -

II. Elements

A. Observe the demonstration and list the substances in each beaker.



A



B

1. Describe how each beaker is similar and different. How do these two beakers compare to beakers A and B from the top of page 1?

2. Define: Pure Substance -

3. Examples of Pure Substances

1. H_2O
2. O_2
3. H
4. $C_6H_{12}O_6$
5. C
6. $NaCl$
7. HCl
8. Na
9. $NaOH$
10. N
11. F
12. O

Classify the above pure substances.

4. Define:

a. Element -

b. Atom -

5. Chemical Symbols

C = _____ O = _____

H = _____ N = _____

B. Chemically Combined Atoms

1. Compare the following substances.

Criteria	$NaCl$	$C_6H_{12}O_6$
Elements Present		
# of Each Element		

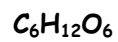
2. Define:

a. Compound

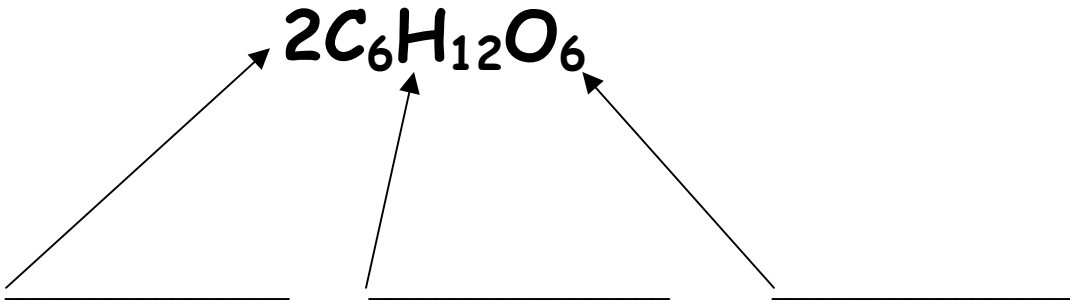
b. Molecule

3. Chemical Formulas

a. The following are examples of chemical formulas.



b. Define: Chemical Formula -



c. State the number of each element in the compound above.

C = _____

H = _____

O = _____

d. Define: Subscripts -

e. Coefficients -

4. Chemical Equations

a. The following are examples of chemical equations written in words. Write the following chemical equations in using the chemical formulas.

1. Hydrochloric Acid + Sodium Hydroxide \longrightarrow Sodium Chloride + Water

_____ + _____ \longrightarrow _____ + _____

2. Carbon Dioxide + Water \longrightarrow Glucose + Oxygen

_____ + _____ \longrightarrow _____ + _____

III. Properties of Elements, Compounds, and Mixtures

A. Complete the chart below based on your knowledge of elements, compounds and mixtures.

Criteria	Elements	Compounds	Mixtures	Sim/Diff
Composed of				
Method of Breaking Down				
Properties of Components				
Properties Throughout				