

**Elements**  
**CHEMISTRY 110**

Name \_\_\_\_\_  
last first

**Set-ups must be shown where applicable.**

1. Give the correct answers for the following:

- a. Give the symbol for a metalloid in period 4 Answer \_\_\_\_\_
- b. What is the common (family) name of group IIB Answer \_\_\_\_\_
- c. What group number are the inert gases Answer \_\_\_\_\_
- d. Give the symbol for the alkali metal in period 4 Answer \_\_\_\_\_
- e. Write the symbol for element with the atomic number of 12 Answer \_\_\_\_\_
- f. Give the atomic mass of sodium Answer \_\_\_\_\_

2. a. Place a {s= solid g = gas l = liquid } next to the elements indicating its physical state at room temperature.

*Plus :*

b. Place a D next to the diatomic elements

Hg \_\_\_\_\_ Kr \_\_\_\_\_ Cl \_\_\_\_\_  
Ca \_\_\_\_\_ As \_\_\_\_\_ Si \_\_\_\_\_  
Br \_\_\_\_\_ I \_\_\_\_\_ Ni \_\_\_\_\_

3. Put an "X" in the correct column to classify the following:

	<u>Metal</u>	<u>Nonmetal</u>	<u>Metalloid</u>
a. Magnesium	_____	_____	_____
b. Potassium	_____	_____	_____
c. Selenium	_____	_____	_____
d. Arsenic	_____	_____	_____
e. Sulfur	_____	_____	_____
f. Lithium	_____	_____	_____
g. Manganese	_____	_____	_____
h. Boron	_____	_____	_____

4. Put an "X" in the correct column to classify the following:

Element Compound Mixture

- a. Cherry Kool-Aid \_\_\_\_\_
- b. Herb Tea \_\_\_\_\_
- c. Br<sub>2</sub> \_\_\_\_\_
- d. NH<sub>3</sub> \_\_\_\_\_
- e. Chocolate \_\_\_\_\_
- f. Air \_\_\_\_\_
- g. N<sub>2</sub> \_\_\_\_\_
- h. chocolate milk \_\_\_\_\_
- i. Si \_\_\_\_\_

5. Indicate whether the following are heterogeneous or homogeneous mixtures:

- a. Grape Jelly \_\_\_\_\_
- b. Chocolate chip cookies \_\_\_\_\_
- c. Red Nail Polish (Red is the only color!) \_\_\_\_\_
- d. Oak lumber \_\_\_\_\_
- e. Chicken pot pie \_\_\_\_\_
- f. Paint Thinner (which looks like gasoline!) \_\_\_\_\_
- g. Burrito \_\_\_\_\_

6. Indicate whether the following are potential or kinetic energy

- a. A can of paint sitting on the edge of a ladder \_\_\_\_\_
- b. A Tidal Wave \_\_\_\_\_
- c. A 70 lb dog jumping on your lap \_\_\_\_\_
- d. Stampeding turtles \_\_\_\_\_
- e. A loaded bow and arrow \_\_\_\_\_

7. Classify each of the following as either a physical change or a chemical change

*Rem.: Chemical changes are frequently accompanied by one or more physical changes*

- a. Sawing a board into two \_\_\_\_\_
- b. A bear sitting on your lunch \_\_\_\_\_
- c. Snowflakes form \_\_\_\_\_
- e. A nail rusting \_\_\_\_\_