**Chapter 2 & 3 Test Review Questions**

1. Which states of matter have definite volume?
2. Which state of matter has definite shape?
3. Classify the following changes as either physical or chemical:
4. boiling liquid bromine
5. melting ice
6. cutting paper
7. cooking meat
8. burning oil
9. decomposing dead trees
10. evaporating water
11. Which of the following is a chemical property?
12. Bromine evaporates at 95 degrees Celsius.
13. Chlorine is a gas.
14. Neon is very nonreactive.
15. Copper is a reddish-orange, shiny metal.
16. Water has a high specific heat (it takes a lot of heat to raise its temp.)
17. Define chemical change.
18. Classify the following as either a chemical or physical property.
19. Copper is a reddish-brown metal.
20. Copper is a reactive metal.
21. Copper is a hard metal.
22. Copper is a very dense metal.
23. Copper is a good conductor of heat and electricity.
24. Which of the following are compounds and which are elements?

Bromine, glucose, salt, carbon, water

1. Elements contain only one kind of \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_.
2. Classify the following as either an element, compound, or mixture.
3. pure water
4. copper
5. the air in this room
6. hydrogen bromide (HBr2)
7. gold
8. wood
9. blood
10. A pure substance made up of more than one kind of atom is called a

\_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_.

1. Give the symbols for the following elements: gold, mercury, phosphorus, chlorine, carbon.
2. The law of constant composition applies to \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_.
3. What is a substance composed of two or more elements combined chemically in a fixed proportion by mass?
4. A formula is used to represent a \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_\_.
5. How many oxygen atoms are indicated in the formula Sn(SO4)2 ?
6. How many atoms of each element are in Al2S3?
7. Which atomic particle determines the chemical behavior or an atom?
8. Which atomic particles have the largest mass? Which atomic particle has the smallest mass?
9. How many protons, electrons, and neutrons respectively does 170Po have?
10. In all neutral atoms of an element, what must be the same ? a. The number of protons. b. the number of electrons. c. the number of neutrons.