Revision Sheets

Chapter 4 - The Periodic Table

Part A- True/False
Indicate whether the statement is true or false.

____ 1. A metalloid is an element with all of the same properties as metals.

____ 2. Elements were arranged in order of increasing atomic mass on Mendeleev's first periodic table.

____ 3. Elements on the far right of the periodic table are classified as nonmetals.

____ 4. Copper is a metal and is a conductor of electricity.

____ 5. Ductility is not a property of metals

____ 6. Most metals are on the right side of the periodic table.

Part B- Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 7. The atomic number of calcium is 20. What can you tell about an atom of this element?

a. the sum of its protons and neutrons is 20
b. it has 20 protons
c. it has 40 protons
d. it has 20 neutrons

____ 8. The scientist best known for contributions to the development of the periodic table is _____.

a. Dmitri Mendeleev
b. Democritus
c. John Dalton
d. Albert Einstein

____ 9. A solid solution, such as sterling silver, is a(n) _____.

a. alloy
b. metalloid
c. colloid
d. emulsion

____ 10. Moving from left to right across the periodic table, how do the elements change?

a. They change from nonmetals to metalloids to metals.
b. They change from metals to metalloids to nonmetals.
c. They decrease in atomic number.
d. They are in alphabetic order.

____ 11. The sum of an atom's protons and neutrons is its _____.

a. atomic mass
b. periodic number
c. atomic number
d. atomic weight

____ 12. When Mendeleev published his periodic table, there were some spaces for undiscovered elements. The image below is a section of a similar table. A reasonable value for the atomic mass of the missing element is ____.

Al 27.0	**Si** 28.1	**P** 31.0
Ga 69.7	**?**	**As** 74.9
In 115	**Sn** 119	**Sb** 122

a. 101
b. 72.3
c. 68.2
d. 34.8

____ 13. Iodine is a solid nonmetal. What is one property of iodine?

a. conductivity
b. dull appearance
c. malleability
d. ductility

____ 14. The elements F, Cl, Br, I and At all appear in the same column of the periodic table and share many _____.

a. atomic numbers
b. chemical formulas
c. physical properties
d. chemical properties

Part C- Matching
Match each tern with its correct description.

a. atomic number
b. nonmetals
c. alkaline earth metals
d. group
e. periodic table
f. alkali metals
g. metal
h. period

15. The number of protons in an atom of an element.

16. A chart that shows the elements in order of increasing atomic number.

17. Elements that have no metallic properties.

18. The elements that are in group 1 on the periodic table.

19. An element that is generally shiny and hard.

20. The rows on the periodic table.

_ _ 21. The columns on the periodic table.

_ _ 22. The elements that are in group 2 on the periodic table.

Part D- Short Answer

Write the correct answer for each of the following questions.

23. Describe five physical properties that can help to identify copper.

24. The _____ increases by one for each element as you move left to right across a period.

25. Classify each of the following elements as a metal, nonmetal, or a metalloid:
boron _____
carbon _____
aluminum _____
silicon _____

26. An element that is sometimes a good conductor of electricity and sometimes a good insulator is a(n) _____.

27. An element that is a poor conductor of heat and electricity, but is a good insulator is a(n)_____.

28. What are two properties that make a metal a good choice for use as wires in electronics?