6.1/6.2 Periodic Table

Name: _____ Date: _____

1. How many elements had been identified by the year 1700? _____

2. What caused the rate of discovery to increase after 1700?

_____

3. What did chemists use to sort elements into groups?

_____

4. Who was Dmitri Mendeleev?

_____

5. What property did Mendeleev use to organize the elements into a periodic table?

_____

6. Is the following sentence true or false? Mendeleev used his periodic table to predict the properties of undiscovered elements._____

7. How are the elements arranged in the modern periodic table?

_____

8. Is the following statement true or false? The periodic law states that when elements are arranged in order of increasing atomic number, there is a periodic repetition of physical and chemical properties._____

9. Explain the color coding of the squares in the periodic table in Figure 6.4.

_____

_____

10. Which property below is NOT a general property of metals? _____

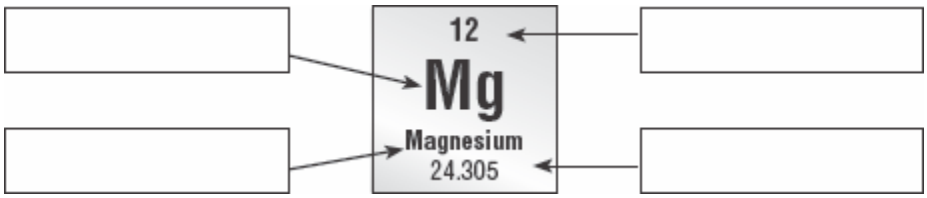
a. ductile
b. poor conductor of heat
c. malleable
d. high luster

11. Is the following statement true or false? The variation in properties among metals is greater than the variation in properties among nonmetals. _____

12. Under some conditions, a metalloid may behave like a _____.

Under other conditions, a metalloid may behave like a _____.

13. Label the sample square from the periodic table below. Use the labels *element name, element symbol, atomic number,* and *average atomic mass.*



14. List three things, other than the name, symbol, atomic number, and average atomic mass, you can discover about an element using the periodic table in Figure 6.9.

a._____

b._____

c._____

15. Is the following sentence true or false? The subatomic particles that play the key role in determining the properties of an element are electrons._____

16. Why are Group A elements called representative elements?_____

16. Classify each of the following elements as a(n) *alkali metal, alkaline earth metal, halogen*, or *noble gas*.

a. sodium _____ **d.** fluorine _____

b. chlorine _____ **e.** xenon _____

c. calcium _____ **f.** potassium _____

Match the category of elements with an element from that category.

_____**17.** noble gases **a.** gallium

_____ **18.** representative elements **b.** nobelium

_____ **19.** transition metals **c.** argon

_____ **20.** inner transition metals **d.** vanadium

a. gallium

b. nobelium

c. argon

d. vanadium