Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour \_\_

Atomic Structure

1.The 3 particles of the atom are: Their respective charges are:

a.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ a.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ c.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.The number of protons in one atom of an element determines the atom’s

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_,and the number of electrons determines

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_of and element.

3.The atomic number tells you the number of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_in one atom of an element. It also tells you the number of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_in a neutral atom of that  element. The atomic number gives the “identity “ of an element as well as its location on the

Periodic Table. No two different elements will have the \_\_\_\_\_\_\_\_\_\_\_\_\_ atomic number.

4.The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_of an element is the average mass of an element ’s naturally occurring atom, or isotopes, taking into account the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_of each isotope.

5.The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_of an element is the total number of protons and neutrons in  the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the atom.

6.The mass number is used to calculate the number of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_in one atom of an element. In order to calculate the number of neutrons you must subtract the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

7.Give the symbol and number of protons in one atom of:

Lithium \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    Bromine \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Iron \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_         Copper \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Oxygen \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   Mercury \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Krypton \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Helium \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8.Give the symbol and number of electrons in a neutral atom of:

Uranium \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Chlorine \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Boron \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_     Iodine \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Antimony \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Xenon \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9.Give the symbol and number of neutrons in one atom of:

(To get “mass number ”,you must round the “atomic mass ” to the nearest whole number)) Show your calculations.

Barium \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Bismuth \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Carbon \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Hydrogen \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Fluorine \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Magnesium \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Europium \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Mercury \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10.Name the element which has the following numbers of particles:

a.26 electrons,29 neutrons,26 protons \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b.53 protons,74 neutrons \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c.2 electrons (neutral atoms)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d.20 protons \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_