

Name _____

Period _____

HW 19

Chemistry

Dr. Hinz

1) Arrange these elements in order of decreasing atomic size: sulfur, chlorine, aluminum, and sodium. Does your arrangement demonstrate a periodic trend or a group trend?

2) Write the name and electron configuration for the following elements:

a) the noble gas in period 3

b) the metalloid in period 3

c) the alkali earth metal in period 4

3) Which element in each pair has atoms with a larger atomic radius?

a) sodium and lithium

b) germanium or selenium

c) fluorine or bromine

d) cesium or lead

4) Atoms that have a charge are called _____. A positively charged atom is called a _____ while a negatively charged atom is called an _____.

5) Determine whether each element is likely to form a positively charged or a negatively charged atom. Also determine the magnitude of the charge (e.g. +1, +2, -1, etc.)

Element	Group Name (if applicable)	Type of ion	Magnitude of Charge
Li	Alkali Metal	Positive	+1
Cl			
Ba			
O			
Na			

6) Provide an example of each of the following:

a) a s-block element _____

b) a d-block element _____

c) a f-block element

d) a p-block element

e) a non-metal that is a gas at room temperature _____

f) a metal that is a solid at room temperature _____

g) a metalloid _____

h) an element that touches the zigzag line that is NOT a metalloid _____

i) a metal that is liquid at room temperature _____