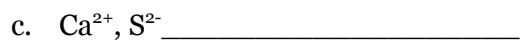
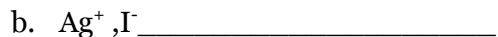
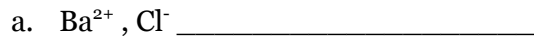


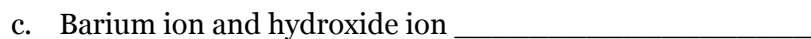
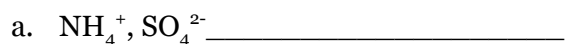
**Bonding Test Review**

Name: \_\_\_\_\_

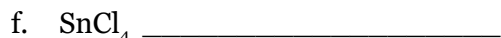
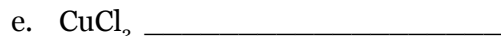
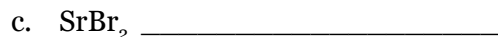
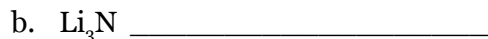
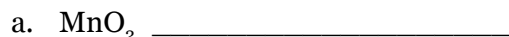
1. Write the formulas for the compounds formed from these pairs of ions.



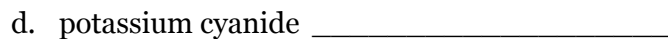
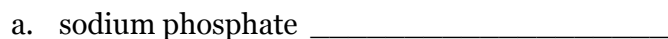
2. Write formulas for compounds formed from these pairs of ions.



3. Name the following ionic compounds.



4. Write formulas for the following ionic compounds.



f. potassium dichromate \_\_\_\_\_

5. Name the following compounds.

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

b. FeCl<sub>3</sub> \_\_\_\_\_

c. Na<sub>2</sub>SO<sub>4</sub> \_\_\_\_\_

d. K<sub>2</sub>CO<sub>3</sub> \_\_\_\_\_

e. Cu(OH)<sub>2</sub> \_\_\_\_\_

f. LiNO<sub>3</sub> \_\_\_\_\_

6. Name the following covalent compounds.

a. PCl<sub>5</sub> \_\_\_\_\_

b. CCl<sub>4</sub> \_\_\_\_\_

c. NO<sub>2</sub> \_\_\_\_\_

d. XeF<sub>2</sub> \_\_\_\_\_

e. SiO<sub>2</sub> \_\_\_\_\_

f. Cl<sub>2</sub>O<sub>7</sub> \_\_\_\_\_

7. Write the formulas for the following covalent compounds.

a. nitrogen tribromide \_\_\_\_\_

b. dichlorine monoxide \_\_\_\_\_

c. sulfur dioxide \_\_\_\_\_

d. dinitrogen tetrafluoride \_\_\_\_\_

## Bonding Properties

Property	Ionic	Covalent	Metals
Luster			
Malleability			
Ductility			
Melting Point			
Solubility			
Ability to conduct electricity as solid			
Ability to conduct electricity as liquid			
Use of electrons in bonding			

## Lewis Structure & VSEPR Theory

Complete the following charts:

Shape	Bonded Atoms	Lone Pairs	Sketch of Shape
Linear			
Bent			
Trigonal Planar			
Trigonal Pyramidal			
Tetrahedral			
Trigonal bipyramidal			
See Saw			

T Shape			
Octahedral			
Square pyramidal			
Square planar			

Compound	Formula	Lewis Structure	Bonded Atoms	Lone Pairs	Shape	P / NP
8. boron tribromide Val e- _____						
9. Carbon dioxide Val e- _____						
10. Water Val e- _____						
11. Silicon tetrachloride Val e- _____						
12. Phosphorus trihydride Val e- _____						
13. Dichlorine monoxide Val e- _____						

14. Arsenic pentafluoride  Val e- _____						
15. Phosphate ion  Val e- _____						
16. Sulfur hexahydride  Val e- _____						
17. Selenium hexachloride  Val e- _____						
18. Iodine pentafluoride  Val e- _____						
19. Krypton tetrabromide  Val e- _____						

**Review Objectives from last test:**

Summarize how reactivity changes in groups.

- Which element is least reactive?  
a. Be            b. Mg            c. Ca            d. Sr
- Which element is most reactive?  
a. Be            b. Mg            c. Ca            d. Sr

Predict the number of electrons lost or gained & oxidation number (charge) based on electron configuration

- What charged ion would each element form?  
a.  $1s^2 2s^2 2p^6 3s^2 3p^5$  \_\_\_\_\_  
b.  $1s^2 2s^2 2p^6 3s^1$  \_\_\_\_\_