**Ionic or Covalent?**

**An Introduction**

1. How can you tell if there is an ionic bond or a covalent bond?
2. How are ionic bonds and covalent bonds different?
3. How are ionic and covalent bonds similar?
4. Identify the type(s) of bond(s) found in the following molecules:
   1. CCl4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Li2O \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. NF3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   4. CaCl2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   5. SO2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   6. MgBr2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Determine if the compound is ionic or covalent and list the number of atoms involved in each compound.

a. H2 \_\_\_\_\_\_\_\_\_\_\_\_\_ # \_\_\_\_

1. PCl3 \_\_\_\_\_\_\_\_\_\_\_\_\_ # \_\_\_\_
2. F2 \_\_\_\_\_\_\_\_\_\_\_\_\_ # \_\_\_\_
3. NaBr \_\_\_\_\_\_\_\_\_\_\_\_\_ # \_\_\_\_
4. NF3 \_\_\_\_\_\_\_\_\_\_\_\_\_ # \_\_\_\_
5. MgO \_\_\_\_\_\_\_\_\_\_\_\_\_ # \_\_\_\_
6. CH4 \_\_\_\_\_\_\_\_\_\_\_\_\_ # \_\_\_\_
7. HCl \_\_\_\_\_\_\_\_\_\_\_\_\_ # \_\_\_\_
8. Tell me if the following compound is Ionic or Covalent, then draw out the bond:
9. CO2*Ionic or Covalent?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*
10. BeCl2*Ionic or Covalent?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*
11. H2O *Ionic or Covalent?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*
12. ZnF3*Ionic or Covalent?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*
13. CCl4*Ionic or Covalent?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*
14. NH3*Ionic or Covalent?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*
15. O2*Ionic or Covalent?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*
16. NaBr*Ionic or Covalent?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*
17. CCl3Br*Ionic or Covalent?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*
18. BeS*Ionic or Covalent?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*