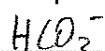
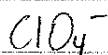
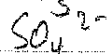
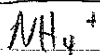


CH105 SJ
Bliss Chang

Naming Covalent Compounds



Polyatomic Ions



Homo and heteroatomic Molecules

Differentiate between homo- and heteroatomic molecules and provide an example of each.

Electron Dot Structures

- 1) Place least electronegative atom (except H) as the central atom.
- 2) Count the total number of e^- in the compound.
- 3) Assign single bonds to any atoms that require one pair of e^- to have an octet.
- 4) If there are not enough electrons, start forming multiple bonds.
- 5) Check that all atoms have octets.

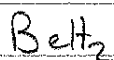


Exceptions to the Octet Rule

B, Al can have $6 e^-$

Be can have $4e^-$

Any element in the 3rd row or below can expand its octet ($10e^-$ or greater)



Distinguishing Between Ionic and Covalent Compounds

- Ionic compounds have large electronegativity differences (often a metal + a nonmetal)
- Covalent compounds have small electronegativity differences (often two nonmetals)
- Homoatomic molecules are always covalent.

Identify the following as either ionic or covalent. Indicate bond polarity for covalent compounds.

