**Chemistry B Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Lewis dot structures Period\_\_\_\_\_\_**

Procedure for drawing Lewis dot structures for molecular compounds:

1. Determine the sum total of valence electrons contributed by each atom.
2. Draw the skeletal structure for the molecule (see notes for suggestions).
3. Deduct 2 electrons from the total for each bond formed.
4. Distribute remaining electrons about each atom to give each an octet.
5. If an octet is not made for each atom, make multiple bonds.

1. Draw Lewis structures for the following molecules.

a. Cl2 b. HCl

c. SCl2 d. AsF3

e. O3 f. HCN

g. SO3 h. CO3-2

i. CH4 j. CH3Cl

2. To the side of each structure drawn above, predict the geometry and identify if the molecule is polar or nonpolar.

3. Draw Lewis structures for the following molecules.

a. CH3OH b. C4H10

c. C6H6 (tough one) d. C2H2

4. Draw the Lewis Dot Structures for these polyatomic ions.

OH- H3O+

NH4+ CN-

NO2- ClO4-

PO43-