**Chem 1013 Intro to Chem**

**Spring 2013 Alfred State College**

**Exercise #3**

*Determining the formal charges of elements in molecules*

*Using formal charge to guess a better structure beyond the octet rule*

1. Draw the best Lewis structures which obey the octet rule for the compounds below:

a) CO

b) H2SO3 (all three O attach to S, the two H attach to two O)

c) SO3 (all three O attach to S)

d) H3PO3 (all three O attach to P, the three H attach to all three O)

2) Determine the formal charges of all the atoms in the structure above and place the determined charges on each element.

3) Suggest for b-d, a better structure consistent with minimization of formal charge as the guiding factor.

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