

## Homework #3: Due March 17<sup>th</sup>, 2009

### Textbook Problems: Chapter 3

4, 6a, 9a&b, 14, 17, 19, 23, 25, 31, 39, 40, 42

### Extra Activities/Problems:

1. Draw Lewis structures and classify the molecular shape (e.g., linear, trigonal planar, trigonal pyramidal, tetrahedral, bent) of the following molecules:
  - a.  $\text{CO}_2$
  - b.  $\text{BF}_3$  (Boron is central atom, and only has six electrons instead of eight)
  - c.  $\text{HCN}$
  - d.  $\text{SiCl}_4$
  - e.  $\text{H}_2\text{S}$
2. From the textbook, choose to answer either 57 or 60b. Some information about the status of the Kyoto Protocol can be found at the European climate network at <http://www.climnet.org/EUenergy/ratification.htm#score> and information on the status of the Montreal Protocol can be found at the United Nations Ozone website at [http://ozone.unep.org/Ratification\\_status/](http://ozone.unep.org/Ratification_status/). Information about  $\text{CO}_2$  emissions for various countries can be found the Carbon Dioxide Information Analysis Center at [http://cdiac.ornl.gov/trends/emis/meth\\_reg.html](http://cdiac.ornl.gov/trends/emis/meth_reg.html).
3. Barack Obama has been in office for just a few months, but there is a lot of optimism that his presidency will reverse some of the Bush Administration environmental policies. Find a news article supporting this statement and one opposed to the statement. (Provide me with a copy.) What do you think the Obama Administration policies will be? What obstacles will need to be overcome to implement these policies?