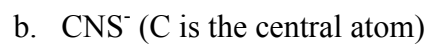
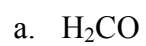


Lewis Structures

Name: _____

- Draw the Lewis electron-dot structures for CO_3^{2-} , CO_2 , and CO , including resonance structures where appropriate.
 - Which of the three species has the shortest C-O bond length. Explain your answer.
- There are three compounds with the formula $\text{C}_2\text{H}_2\text{Cl}_2$. Draw Lewis structures for these three compounds. Which of the three is non-polar?

3. Draw Lewis electron-dot structures (including resonance structures where applicable) for:



h. N_2O_4

i. NO

4. Draw reasonable Lewis structures for the following. None obey the octet rule.

a. NO_2

b. SO_2^-

c. BCl_3

d. CO^+

5. The cyanate ion (NCO^-), like the thiocyanate ion, has three possible Lewis structures.
- Draw these three Lewis structures, and assign formal charges to the atoms in each structure.

- Which Lewis structure is the preferred one?