

1. (3 points) Draw the best Lewis structure for the following compound.

You must show all lone pair electrons. You must place the charge on the atom when appropriate.



2. (3 points) Draw resonance forms for the following ion:



3. (3 points) Draw the resonance hybrid for the same ion:



4. (2 points) What is the name of NO₂⁻ ?

5. (3 points) Draw three Lewis structures for N₂O. Rate each structure's contribution to the overall resonance hybrid from the least (1) to the most (3). Make N the central atom.

6. (6 points) Arrange the bonds of each of the following sets in order of increasing polarity.

a) N-F, N-Cl, N-Br, N-I

b) H-F, O-F, B-F, C-F

c) F-Br, F-F, F-I, F-Cl