**HomeWork 22**

**Due Monday 7 December**

**Your name: \_\_\_\_\_answers\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_/11**

**1a) Draw the Lewis structure for O3 that obeys the octet rule.**



**1b) Will O3 exhibit resonance ? Yes No (circle answer)**

**2) Draw the best structure for ClO3- , POCl3 and SO2  that minimizes formal charge.**

**Include all lone pairs !**







**ClO3- POCl3 SO2**

**3) What are the geometries for the molecules in problem 2 predicted by VSEPR**

**theory , and, what is the computed bond order for each molecule ?**

**geometric shape bond order**

**ClO3- \_\_\_trigonal planar\_\_\_\_\_\_ \_\_5/3\_**

**POCl3  \_\_\_\_tetrahdral\_\_\_\_\_\_\_\_\_ \_5/4\_**

**SO2 \_\_\_\_bent\_\_\_\_\_\_\_\_\_\_\_\_\_ \_2\_\_\_**