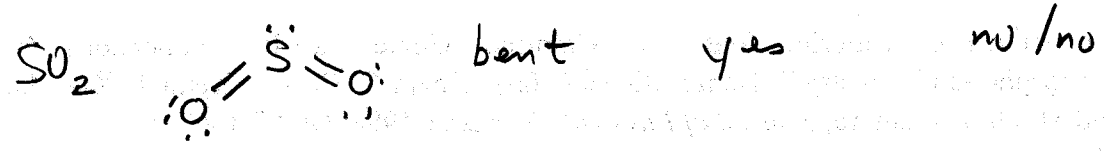
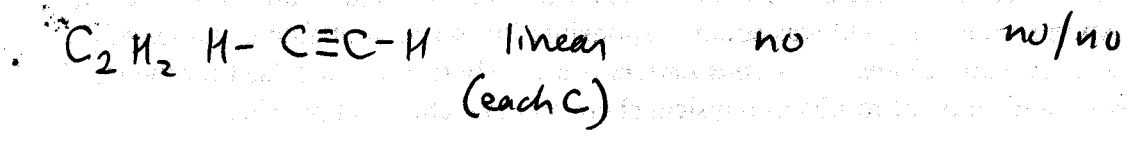
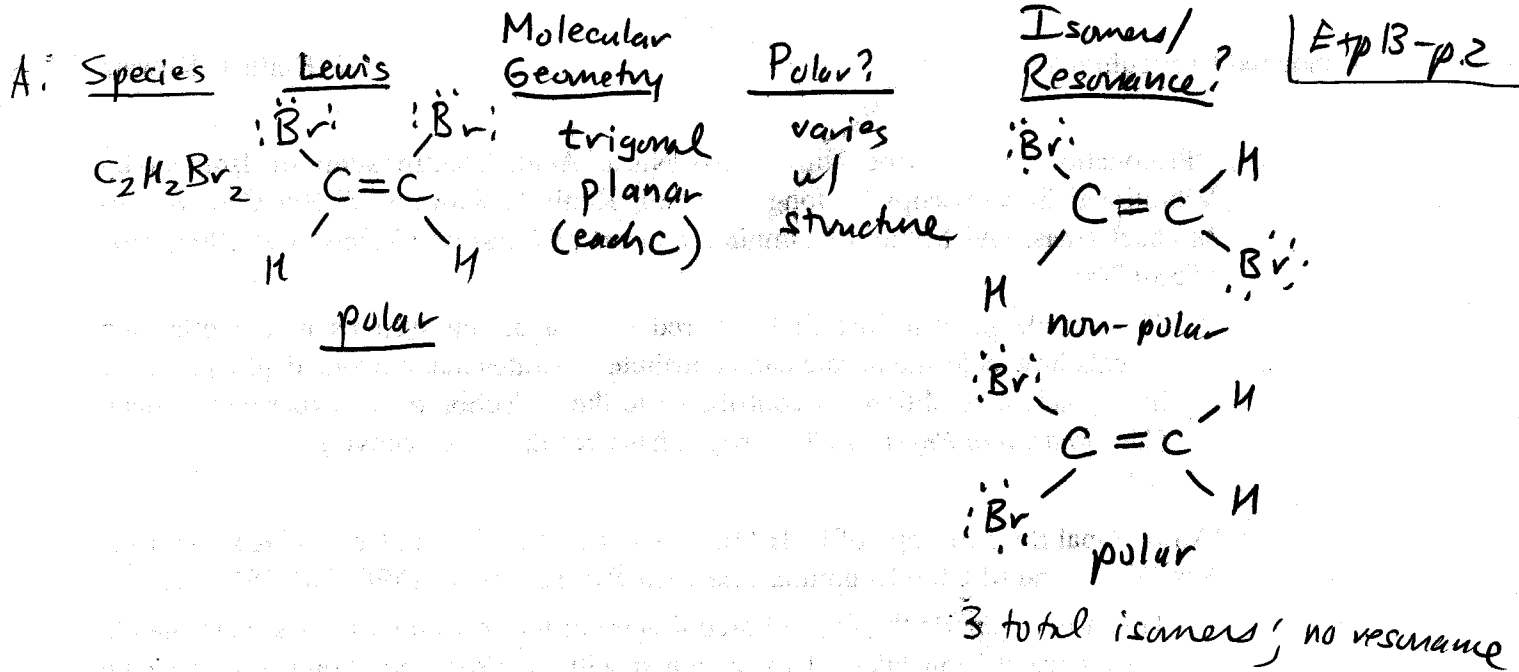
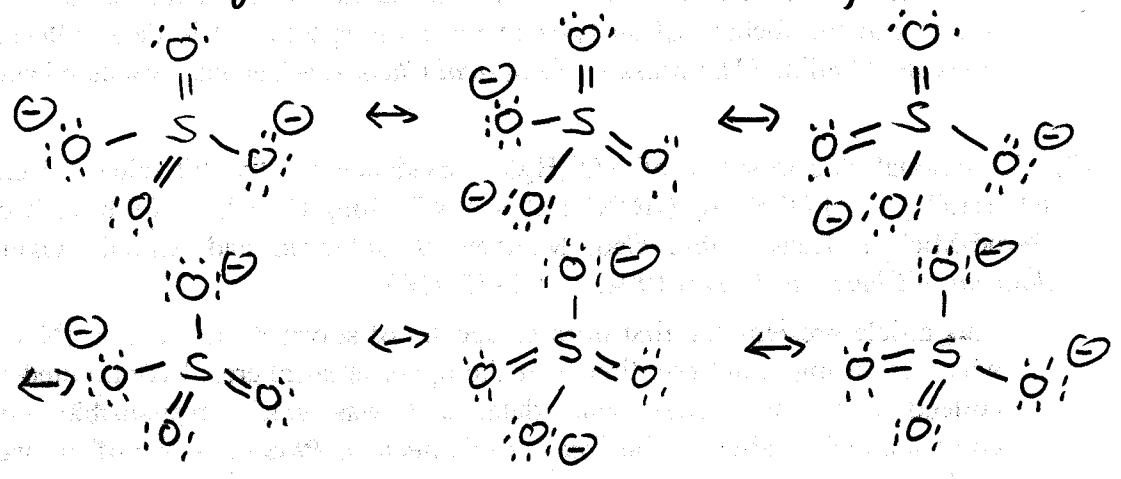


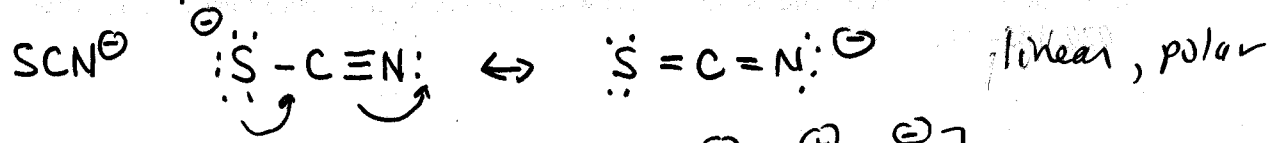
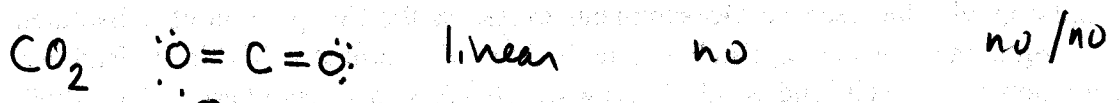
<u>species</u>	<u>Lewis</u>	<u>molecular geometry</u>	<u>polar?</u>	<u>isomer/resonance?</u> Experiment 13
A. CH_4		tetrahedral	no	no/no
CH_2Cl_2		tetrahedral	yes	no/no
CH_4O		tetrahedral (C) bent (O)	yes	no/no
H_2O		bent	yes	no/no
H_3O^+		trigonal pyramidal	yes	no/no
H-F		linear	yes	no/no
NH_3		trigonal pyramidal	yes	no/no
H_2O_2		bent (both O's)	depends on conformation	no/no
N_2	$:\text{N}\equiv\text{N}:$	linear	no	no/no
P_4	SKIP			
C_2H_4		trigonal planar (both C's)	no	no/no



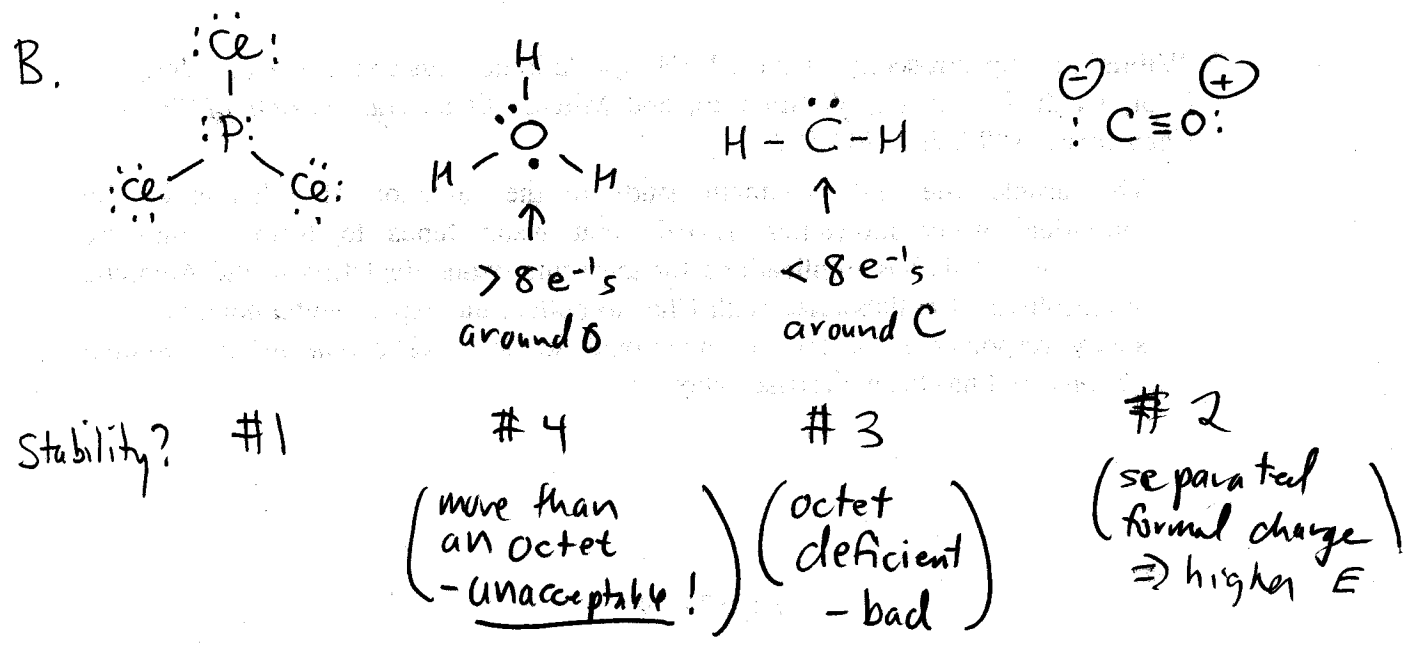
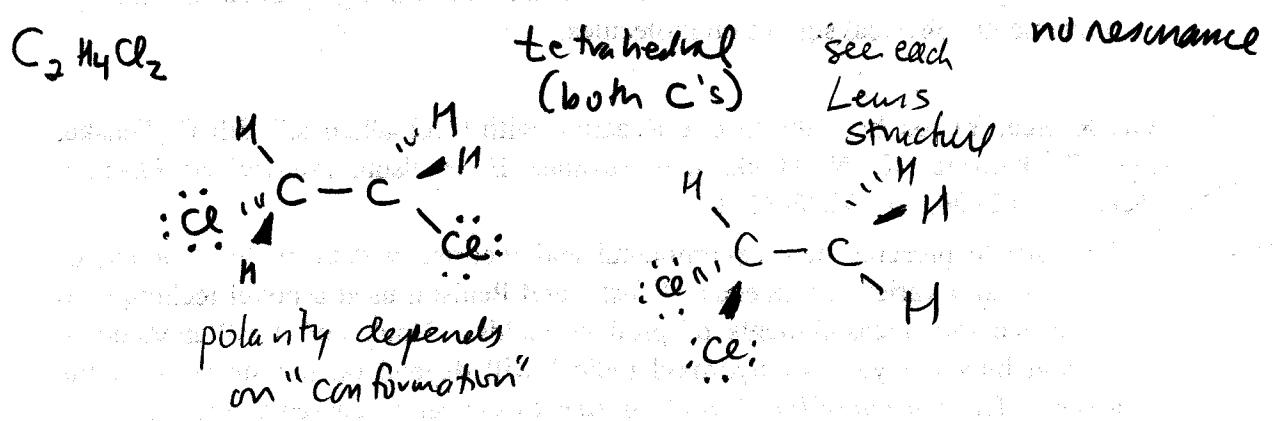
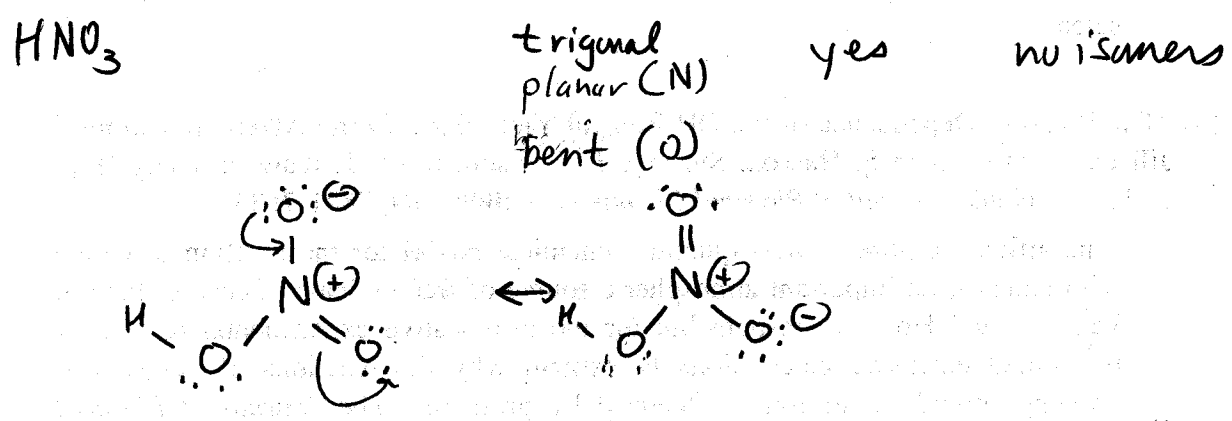
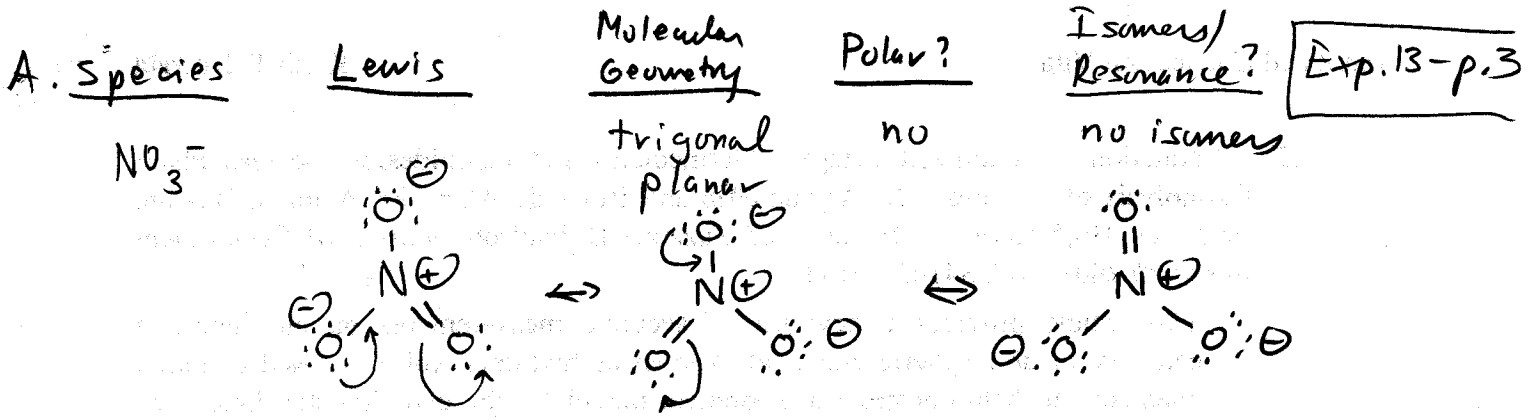
SO_4^{2-} 6 equivalent resonance structures; no isomers; non-polar



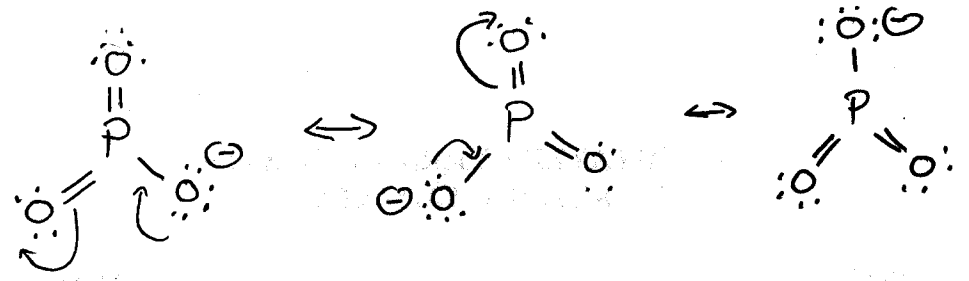
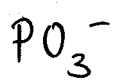
tetrahedral



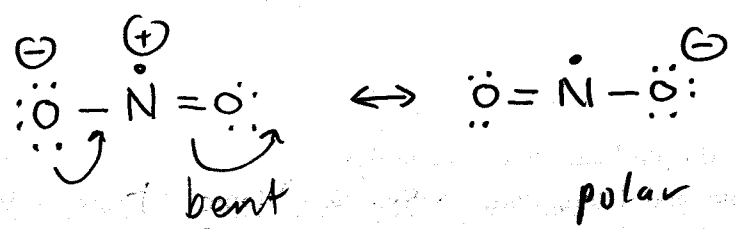
[not required for full credit! Isomer: $C^+≡N-S^-$]



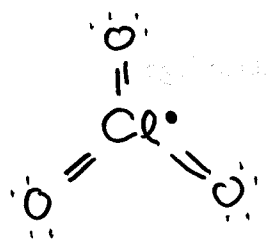
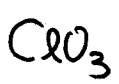
Unknowns:



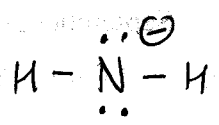
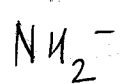
trigonal planar non-polar no isomers



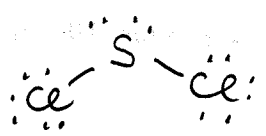
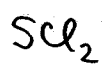
bent polar no isomers



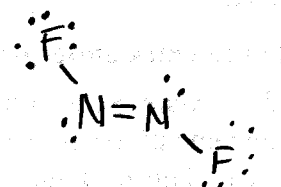
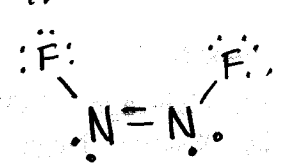
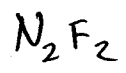
trigonal pyramidal polar no isomers



bent polar no/no

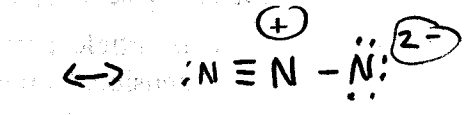
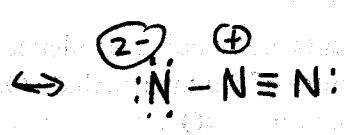
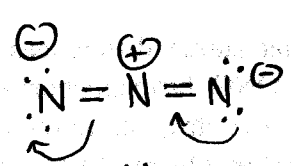
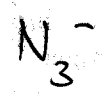


bent polar no/no

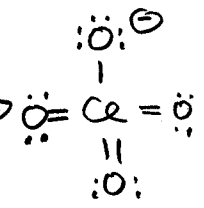
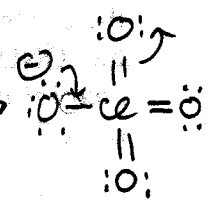
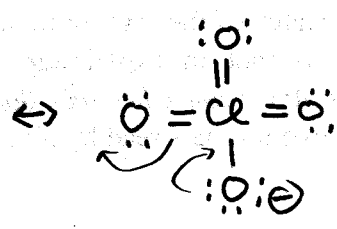
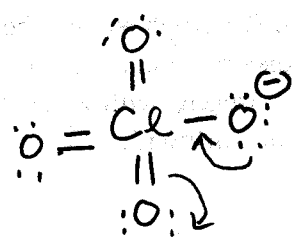
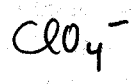


bent (both N's) no resonance

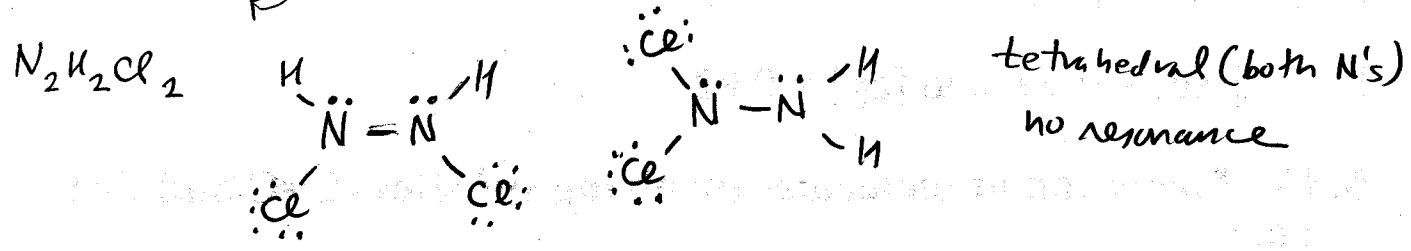
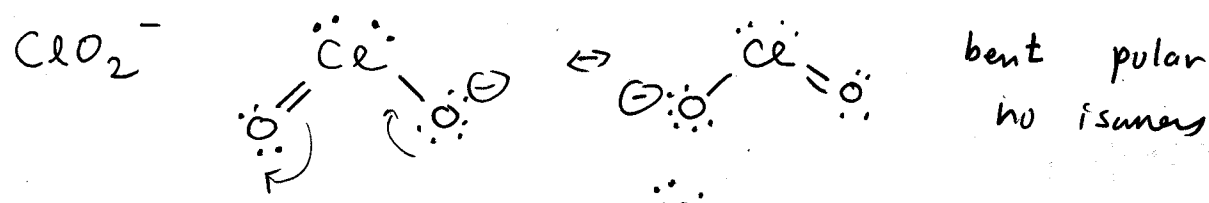
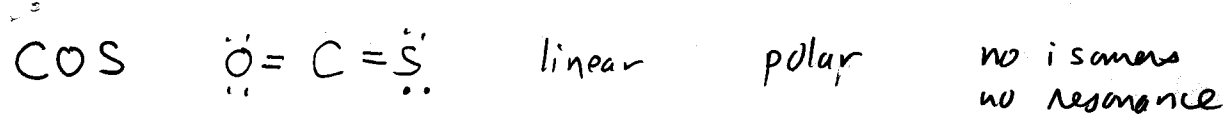
polar non-polar



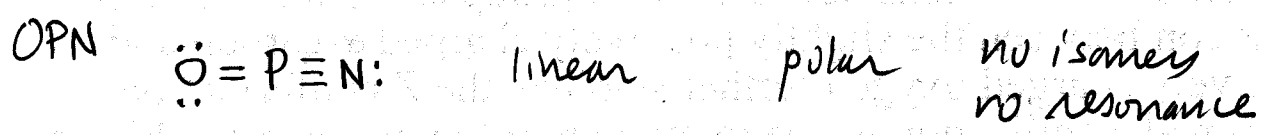
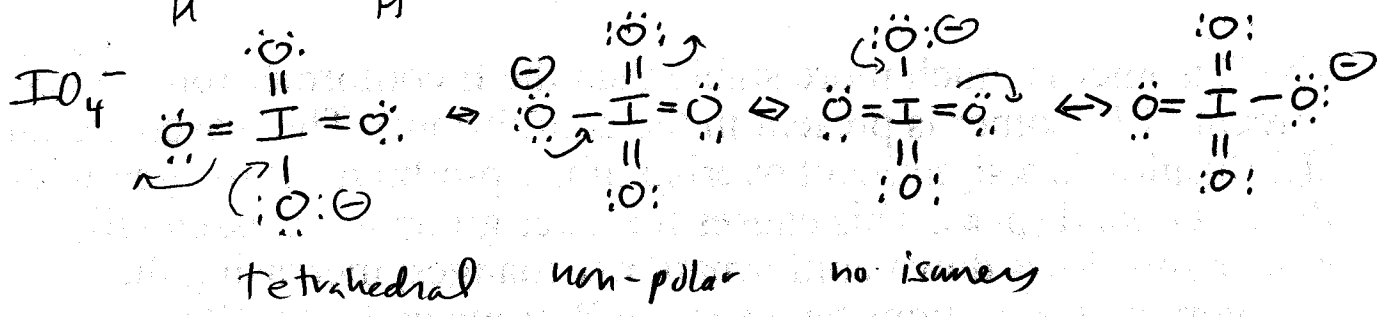
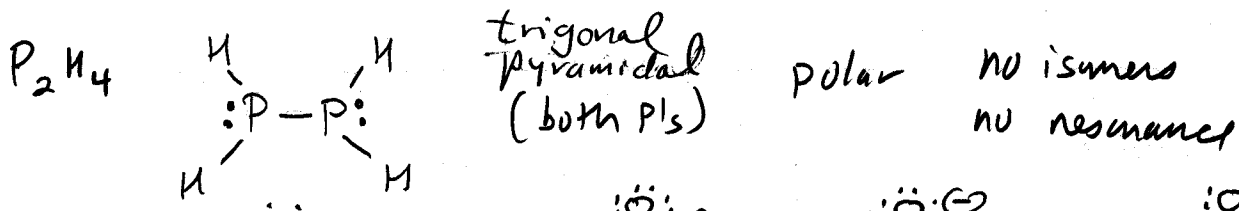
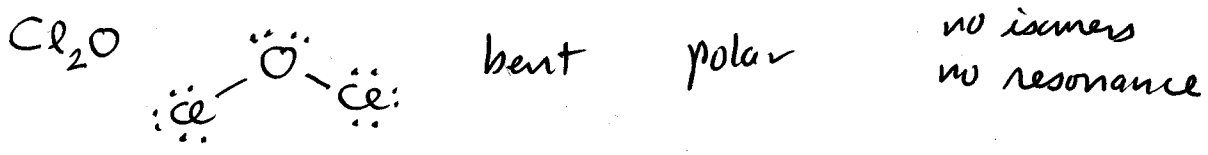
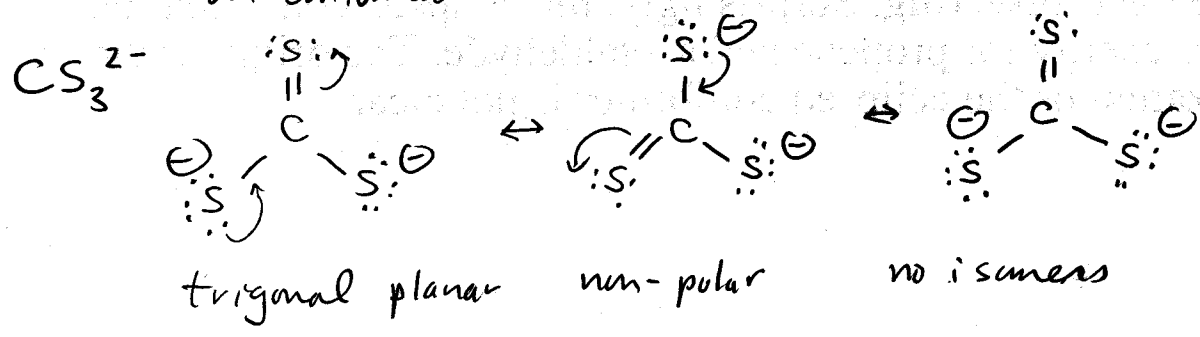
linear non-polar no isomers

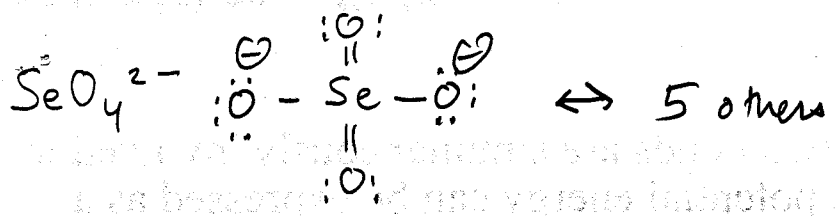


tetrahedral non-polar no isomers

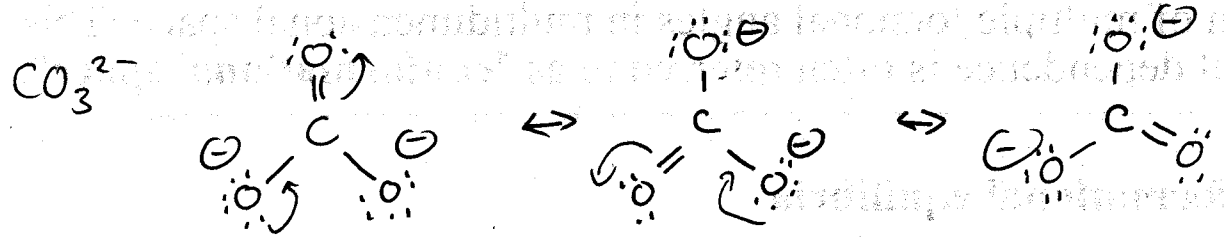


polarity depends on conformation polar

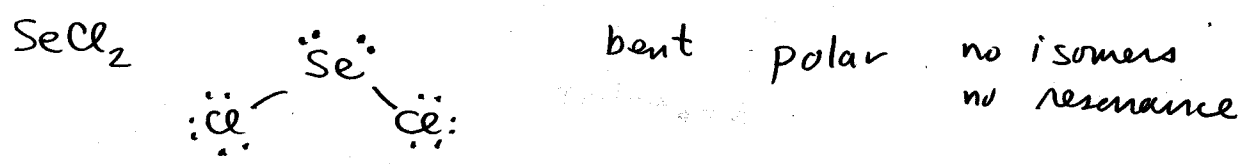




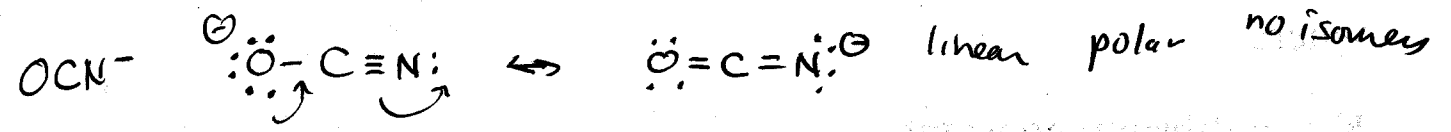
tetrahedral
 non-polar
 no isomers



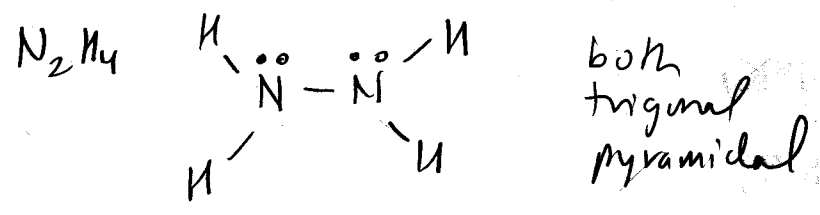
trigonal planar non-polar no isomers



bent polar no isomers
 no resonance



linear polar no isomers



both
 trigonal
 pyramidal polar no isomers
 w resonance

Score: Divide # of errors by 2, and subtract that from 20 pts.