1) For each of the following: a) find the number of valence electrons; b) draw the Lewis Structure (include all resonance structures); c) calculate the formal charge for each atom in each molecule and add it to the Lewis Structure; d) fill in the remainder of the information requested in the table.

a) SO_2	b) SO_3
Electron pair geometry:	Electron pair geometry:
Molecular geometry:	Molecular geometry:
c) SO_3^{-2}	d) CO_3^{-2}
Electron pair geometry:	Electron pair geometry:
Molecular geometry:	Molecular geometry:

e) IO_4^-	f) NO_2
Electron pair geometry:	Electron pair geometry:
Molecular geometry:	Molecular geometry:
g) HOCl	h) I_3^-
Electron pair geometry:	Electron pair geometry:
Molecular geometry:	Molecular geometry:
i) PF_5	j) $BeCl_2$
Electron pair geometry:	Electron pair geometry:
Molecular geometry:	Molecular geometry:

2) Find the error in each of the following Lewis structures. Circle the error and redraw the structure so that it is correct.
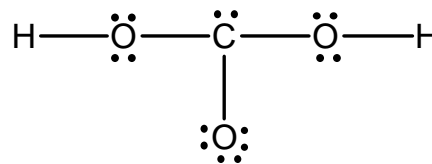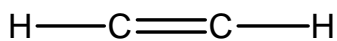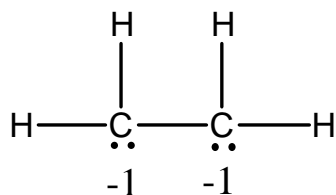
3) Identify two elements that can represent "X" if X has one lone pair in the molecule XBr_4.

Moore, Stanitski, and Jurs: Chapter 8: 35 (explain why), 39, 64, 79, 85, 91, 95

Chapter 9: 22, 26