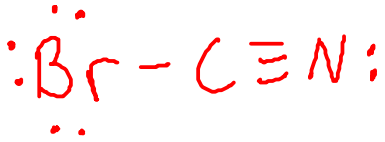
CHM 110 Lewis Structures Practice Set SOLUTIONS

Draw Lewis structure for the following molecules or ions If the molecule or ion has resonance forms, draw all of them.

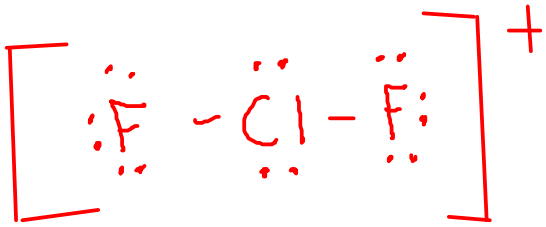
1) BrCN

16 e⁻



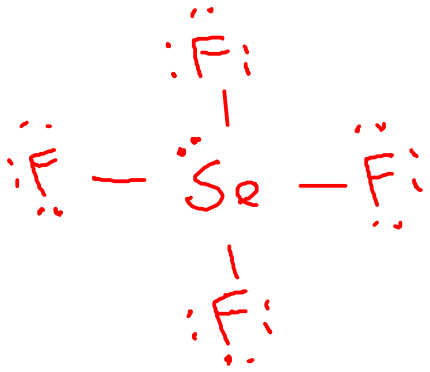
2) ClF_2^+ (ion)

21 − 1 = 20 e⁻ ← This is a CATION, so SUBTRACT electrons from the count to make sure we have a +1 charge!



3) SeF_4

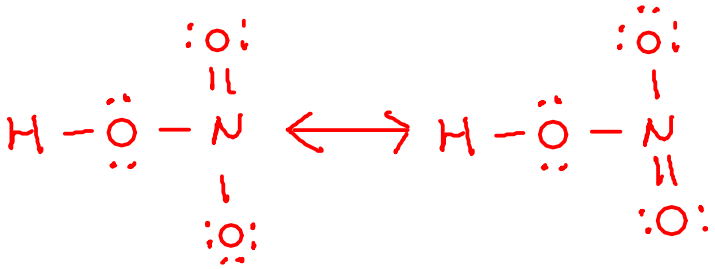
34 e⁻



Expanded valence

4) HNO_3 (oxyacid)

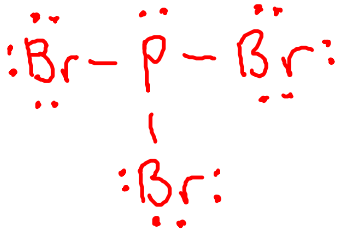
24 e⁻



As shown in your notes with nitrous acid, OXYACIDS have at least one HYDROGEN atom bonded directly to an OXYGEN atom

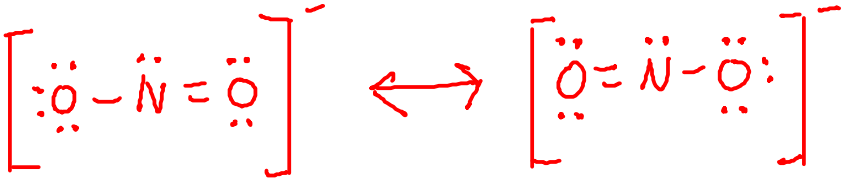
5) PBr_3

26 e⁻



6) NO_2^- (ion)

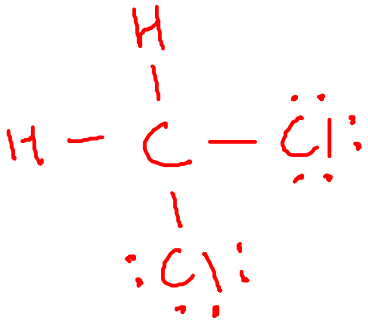
17 + 1 = 18 e⁻



This is an ANION, so ADD electrons to the count to make sure we have a -1 charge!

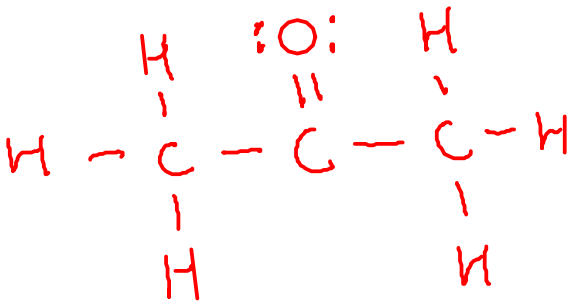
7) CH_2Cl_2

20 e⁻



8) CH_3COCH_3

24 e⁻



Take a hint from the way the chemical formula for this molecule was written ... there are three parts:

CH_3 , CO, CH_3

... which are chained together to make the mo;lecule