

Wed. June 22 - 04

How to find formal charges / most favored resonance structure:

ex)



Valence Electrons in this conformation:	1	6	4	5
Normal # Valence electrons	1	4	5	6
Formal charge:	0	-2	+1	-1

(A)

← less favored
because higher
formal
charges

Net charge

$$= 0$$

← add up formal charges of
each atom. Should equal net
charge of molecule / polyatomic ion.

↑
formal charge = difference between the #
of valence e^- in this structure vs. normal # of valence e^-



Current Valence e^- :	1	4	4	7
Normal valence e^- :	1	4	5	6
Formal charge:	0	0	+1	-1

(B)

← most favored
because \ominus
on most
electronegative
atom

$e\text{Neg O} > e\text{Neg N}$



"	1	5	4	6
"	1	4	5	6
"	0	-1	+1	0

(C)

← $e\text{Neg N} > e\text{Neg C}$

therefore less
favored because \ominus
is on less electronegative
atom.