

## Writing Lewis Structures

1. Count the valence electrons on all atoms.
2. Draw a structure of the atoms, with the central atom being either carbon (C) or the more positive (least electronegative) atom.
3. Add electrons in single bonds (lines) and then lone pairs around atoms to reach the octet (or known exceptions H=2, Be=4, B,Al =6, and if 5 or 6 bonded pairs, then trigonal bipyramidal and octahedral shapes)
4. If the electron counts match, this is the Lewis Structure!
5. If not and the diagram has more electrons than in step #1, use double/triple bonds to obtain the octet.
6. 
$$\text{Number of bonds} = \frac{(\text{total valence } e \text{ needed} - \text{total valence } e \text{ provided})}{2}$$

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