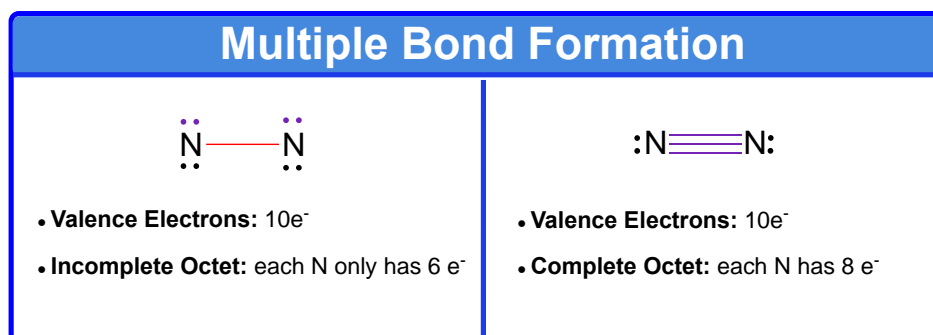


CONCEPT: LEWIS DOT STRUCTURES: MULTIPLE BONDS

- Atoms form _____ bonds when valence electrons are not enough to satisfy octet.



EXAMPLE: Draw the Lewis Dot Structure for formaldehyde molecule, CH₂O.

STEP 1: Determine the total number of valence electrons of the structure.

- ☐ Recall, Valence Electrons = _____ of the element.

STEP 2: Place the _____ electronegative element in the center and connect all elements with single bonds.

- ☐ Follow Bonding Preferences guide to determine atom connectivity.

STEP 3: Add electrons to all the _____ elements until they have 8 electrons (Octet Rule).

- ☐ **Duet Rule:** Hydrogen only wants _____ electrons around it.

STEP 4: Place any remaining electrons on the central atom.

STEP 5: If any elements don't have 8 octet electrons, add _____ or _____ bonds between them.

CONCEPT: LEWIS DOT STRUCTURES: MULTIPLE BONDS

PRACTICE: Draw the Lewis Dot Structure for CO_2 compound.

PRACTICE: Determine the Lewis Dot Structure for the diazene molecule, N_2H_2 .

PRACTICE: Give the Lewis Dot Structure that obeys the octet rule for following compound: NOCl .