

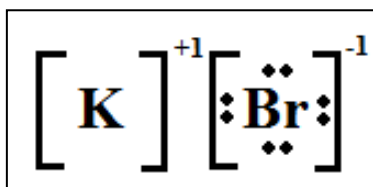
LEWIS DOT STRUCTURES - WORKSHEET #2: EVEN ANSWERS

From the chemical formula on the left, construct a Lewis dot structure for the compound. Next, determine whether the molecule (or compound) has ionic, polar covalent, or nonpolar covalent bonding between the atoms within the compound. After you finish drawing the Lewis dot structure - assign the correct partial charge (δ^+ or δ^-), or full charge to each element (if applicable). Also, be sure to include how many valence electrons are represented in the structure from each element.

1. H₂O

2. Potassium Bromide

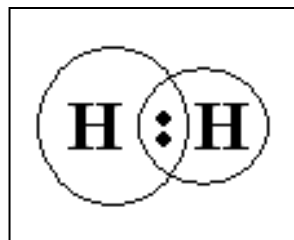
$|0.8 - 2.8| = 2.0$ **Ionic**
K - Br
+1 -1
 $1 e^- + 7 e^- = 8 e^-$



3. CO₂

4. Hydrogen Gas, H₂

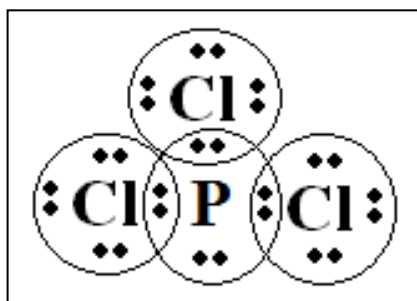
$|2.1 - 2.1| = 0.0$ **N.P.C.**
H - H
 $1 e^- (2) = 2 e^-$



5. Ammonia, NH₃

6. PCl₃

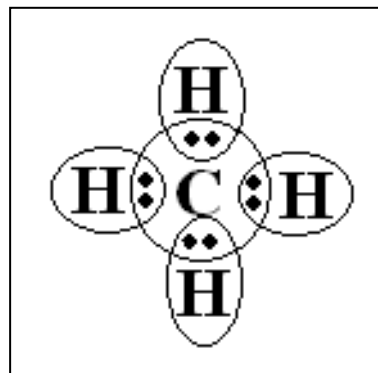
$|2.1 - 3.0| = 0.9$ **P.C.**
P - Cl
 $\delta^+ \delta^-$
 $5 e^- + 7 e^- (3) = 26 e^-$



7. CCl_4

8. Methane, CH_4

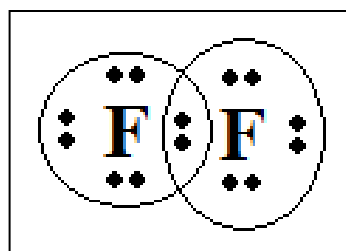
$$\begin{aligned} |2.5 - 2.1| &= 0.4 && \text{P.C.} \\ \text{C} - \text{H} &&& \\ \delta^- & \delta^+ && \\ 4 e^- + 1 e^- (4) &= 8 e^- && \end{aligned}$$



9. Calcium Chloride

10. Fluorine gas, F_2

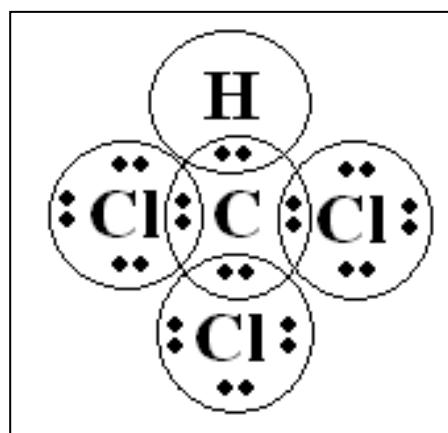
$$\begin{aligned} |4.0 - 4.0| &= 0.0 && \text{N.P.C.} \\ \text{F} - \text{F} &&& \\ 7 e^- (2) &= 14 e^- && \end{aligned}$$



11. O_2

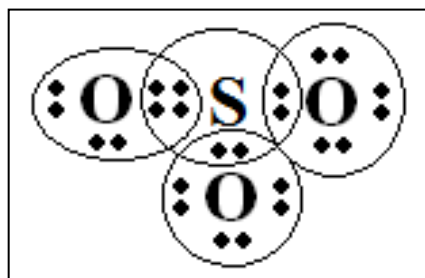
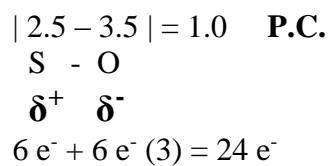
12. CHCl_3

$$\begin{aligned} |2.5 - 2.1| &= 0.4 && \text{P.C.} \\ \text{C} - \text{H} &&& \\ \delta^- & \delta^+ && \\ |2.5 - 3.0| &= 0.5 && \text{P.C.} \\ \text{C} - \text{Cl} &&& \\ \delta^+ & \delta^- && \\ 4 e^- + 1 e^- + 7 e^- (3) &= 26 e^- && \end{aligned}$$



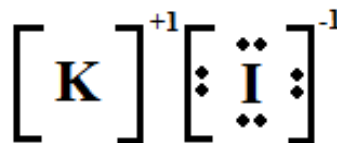
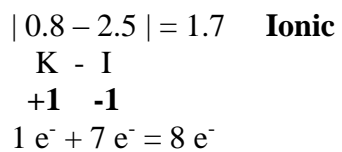
13. Sulfur dioxide

14. SO_3



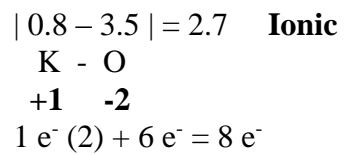
15. CO_3^{2-}

16. KI



17. CBr_4

18. K_2O



19. SO_4^{2-}