

Practice Problems

2. Draw the Lewis dot structures for each of the following molecules:

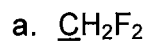


3. Draw the Lewis dot structure for each of the following polyatomic ions:



4. For the following molecules or ions (where the central atom is underlined):

i. Draw the Electron dot structure.



c. phosphite ion, PO_3^{-3}

5. For each of the bonds below:

- Use delta notation (δ and δ^-) to indicate which atom is more electronegative, and
- Use an arrow to point from the less electronegative atom to the more electronegative atom.



6. Identify the type of bond described for each of the following as ionic, polar covalent, nonpolar covalent, or metallic.

_____ i. The C—O bonds in CO_2 .

_____ iv. The C—C bonds in C_3H_8

_____ ii. The bonds in F_2 .

_____ v. The bonds in Ba.

_____ iii. The bonds in K_2O .

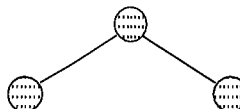
_____ vi. The bonds in H_2O .

7. Determine whether the following five molecules are polar or nonpolar:

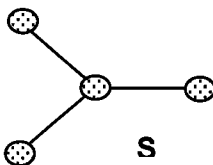
CO_2 :



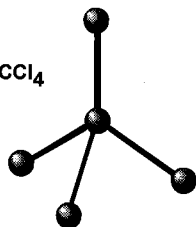
H_2O :



SO_3



CCl_4



CHCl_3

