

## Lewis Structures, VSEPR, Polarity, IM Forces

For each of the following molecules, draw the Lewis structure (with any resonance structures, if applicable), indicate the molecular shapes and bond angles, indicate the molecular polarity (if any), and identify the major intermolecular force in each compound. Hint – in this worksheet, as in all chemistry problems you'll see, polyatomic ions aren't drawn as big lines of atoms.

1) carbon tetrafluoride

2)  $\text{BF}_3$

3)  $\text{NF}_3$

4)  $\text{H}_2\text{CS}$

5) carbonate ion

6)  $\text{CH}_2\text{F}_2$

7) nitrate ion

8)  $\text{O}_2$

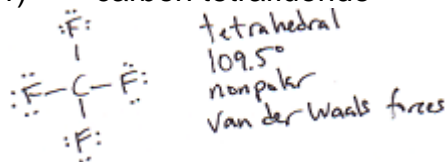
9)  $\text{PF}_3$

10)  $\text{H}_2\text{S}$

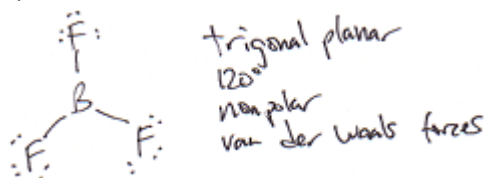
# Lewis Structures, VSEPR, Polarity, IM Forces - Answers

For each of the following molecules, draw the Lewis structure (with any resonance structures, if applicable), indicate the molecular shapes and bond angles, indicate the molecular polarity (if any), and identify the major intermolecular force in each compound. Hint – in this worksheet, as in all chemistry problems you'll see, polyatomic ions aren't drawn as big lines of atoms.

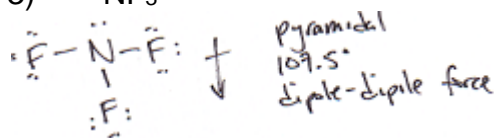
- 1) carbon tetrafluoride



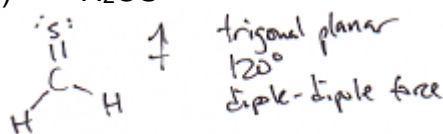
- 2)  $\text{BF}_3$



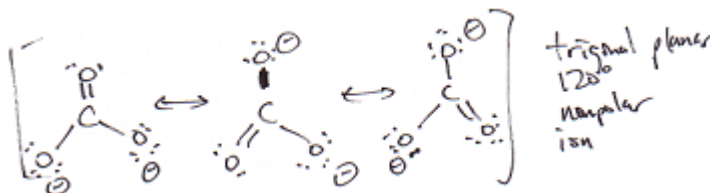
- 3)  $\text{NF}_3$



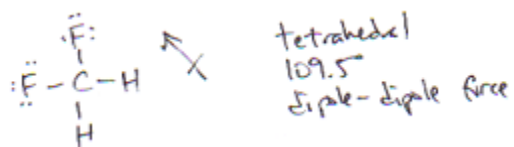
- 4)  $\text{H}_2\text{CS}$



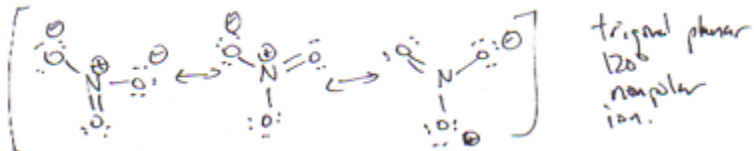
- 5) carbonate ion



6)  $\text{CH}_2\text{F}_2$



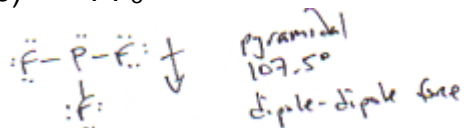
7) nitrate ion



8)  $\text{O}_2$



9)  $\text{PF}_3$



10)  $\text{H}_2\text{S}$

