

Non Sibi High School

Andover's Chem 300: Accelerated/Honors Chemistry

Chapter 11, Review Quiz 1

1

Draw the Lewis structure, name the molecular geometry (shape), draw a three-dimensional sketch, and indicate the bond angle for each of the following molecules and ions. Also state whether the neutral molecules are polar or nonpolar.

- BI_3
- CH_2Br_2
- FNO
- H_3O^+
- OCS
- PCl_4^+
- SF_2

2

Draw the Lewis structure, name the molecular geometry (shape), draw a three-dimensional sketch, and indicate the ideal bond angle(s) for each of the following molecules and ions. Also state whether the neutral molecules are polar or nonpolar.

- ClF_3
- IF_5
- KrF_2
- PCl_4^-
- SF_5^+
- SeF_6
- XeCl_4

3

Draw the Lewis structure and indicate the center atom hybridization for each of the following molecules and ions:

- a. CHF_3
- b. NO_2^+
- c. NO_3^-

4

Draw the Lewis structure for NH_2CN that has no formal charges and determine the number of sigma and pi bonds in the molecule.



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