

Chem 1311
Temple College at Taylor
Problem Set #9

Name _____

Short Answer - Fill in each of the blank entries in the following tables. Use NH₃ as an example. If there are resonance structure, draw only one. Those Lewis Structures that are exceptions to the octet rule are drawn for you.

1.

	Lewis Structure	Electronic Structure	Molecular Structure	Orbital Hybridization	Net Dipole yes or no?
NH ₃	$\begin{array}{c} \text{H} - \overset{\cdot\cdot}{\underset{\cdot\cdot}{\text{N}}} - \text{H} \\ \\ \text{H} \end{array}$	tetrahedral	trigonal pyramidal	sp ³	yes
H ₂ O					
NH ₄ ⁺					
BCl ₃	$\begin{array}{c} \text{Cl} - \text{B} - \text{Cl} \\ \quad \quad \\ \quad \quad \text{Cl} \end{array}$				
CO ₂					
NO ₂ ⁻					
BeCl ₂	$\text{Cl} - \text{Be} - \text{Cl}$				

Lewis Structure	Electronic Structure	Molecular Structure	Orbital Hybridization	Net Dipole yes or no?
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OC₂

