

VSEPR & Hybridization Review

Instructions: Fill out the table for each of the compounds.

Formula	Lewis Structure	Number of Bonded groups on Central Atom	Number of Lone Pairs on Central Atom	Molecular Geometry	Bond Angle
CH ₃ Br					
F ₂ O					
SeF ₄					
ClF ₃					

Formula	Lewis Structure	Number of Bonded groups on Central Atom	Number of Lone Pairs on Central Atom	<u>Molecular Geometry</u>	Bond Angle
XeCl ₂					

- Draw the Lewis structure for PO₄³⁻ in the space on the right.
 - State the **electron** geometry: _____
 - State the hybridization on the central atom: _____
 - How many total sigma bonds are in the molecule? ____
 - How many total pi bonds are in the molecule? _____
- Draw the Lewis structure for COCl₂ in the space on the right.
 - State the **electron** geometry: _____
 - State the hybridization on the central atom: _____
 - How many total sigma bonds are in the molecule? ____
 - How many total pi bonds are in the molecule? _____
- Draw the Lewis structure for ClF₃ in the space on the right.
 - State the **electron** geometry: _____
 - State the hybridization on the central atom: _____
 - How many total sigma bonds are in the molecule? ____
 - How many total pi bonds are in the molecule? _____

4. Draw the Lewis structure for PCl_5 in the space on the right.
- State the **electron** geometry: _____
 - State the hybridization on the central atom: _____
 - How many total sigma bonds are in the molecule? _____
 - How many total pi bonds are in the molecule? _____
5. Draw the Lewis structure for N_2O in the space on the right.
- State the **electron** geometry: _____
 - State the hybridization on the central atom: _____
 - How many total sigma bonds are in the molecule? _____
 - How many total pi bonds are in the molecule? _____