

VSEPR: All Shared (Bonded) Electron Pairs

Examples	Lewis Structure	Number of Electron Pairs Around Central Atom	Molecular Arrangement/Geometry	Name of Shape
BeCl_2				
BF_3				
CH_4				
PCl_5				
SF_6				

VSEPR: Some Unshared (Lone) Electron Pairs

Examples	Lewis Structure	Number of Electron Pairs Around Central Atom	Molecular Arrangement/Geometry	Name of Shape
NO_2^-				
H_2O				
$\text{NH}_3, \text{H}_3\text{O}^+$				

Practice Problems:

Draw the Lewis structure for each of the following. Predict its molecular geometry shape and whether it will have a dipole moment (be polar).

- 1) PCl_4^+
- 2) PCl_6^-
- 3) SO_3
- 4) PF_3
- 5) CO_2
- 6) SeO_3
- 7) SeO_2