

30. Answer the following questions for  $\text{NH}_4^{+1}$
- (A) Draw the Lewis Structure
  - (B) Give the VSEPR geometry of the molecule  
**Your choices are:** linear, trigonal planar, tetrahedron, trigonal pyramidal, bent or not applicable (N/A)
  - (C) Draw the polar bond arrows on the molecule. Is the overall molecule polar or non-polar?
  - (D) What intermolecular forces apply to this molecules?
31. Answer the following questions for  $\text{PH}_3$
- (A) Draw the Lewis Structure
  - (B) Give the VSEPR geometry of the molecule  
**Your choices are:** linear, trigonal planar, tetrahedron, trigonal pyramidal, bent or not applicable (N/A)
  - (C) Draw the polar bond arrows on the molecule. Is the overall molecule polar or non-polar?
  - (D) What intermolecular forces apply to this molecules?
32. Draw the following ionic Lewis Structure:  $\text{CaF}_2$
33. Draw the following ionic Lewis Structure:  $\text{MgO}_3$
34. Draw the following ionic Lewis Structure:  $\text{SrO}$