

Name: _____

Block: _____

Bonding & Molecular Geometry Review

For each compound given:

- A. If the formula is given, write the name of the compound.
- B. If the name is given, write the formula of the compound.
- C. If the compound is covalent:
 - Draw the Lewis Structure. (Show all resonance structures.)
 - Give the hybridization (sp , sp^2 , or sp^3), bond angles, and VSEPR shape around the central atom.
 - If the molecule is polar, indicate the polarity with an arrow. If the molecule is non-polar, write “non-polar”.

1. ZnCl_2

5. ammonium sulfate

2. phosphorus tribromide

6. SiNCl

3. tin (IV) phosphate

7. Bi_2S_3

4. $\text{Mn}_3(\text{PO}_4)_7$

8. dinitrogen monoxide

9. barium nitrate

15. K_3PO_4

10. Hg_2O

16. silver nitrate

11. chromium (VI) dichromate

17. silicon dioxide

12. ZnCO_3

18. CO_3^{2-}

13. diphosphorus dibromide

19. the chlorate (polyatomic) ion

14. CHClO

20. boron triiodide