

This quiz is take-home and open book, and it is intended that all members of the group contribute to completing it. It is a violation of the Academic Honor Code to sign a quiz that you did not work on. **The quiz is due at the end of class on Thursday, October 19.**

List names in alphabetical order, and print them clearly!
Put names on all pages, and staple pages together

Points

- (4) 1. Give the **empirical formulas** for the following ionic compounds.
- (a) magnesium phosphate (b) aluminum bicarbonate
- (c) iron (III) carbonate (d) zinc perchlorate
- (e) ammonium bromite (f) copper (II) cyanide
- (g) sodium hypochlorite (h) potassium dihydrogen phosphate
- (3) 2. Name the following inorganic covalent compounds.
- (a) SF₆ (b) IF₅ (c) PCl₅
- (d) P₄S₆ (e) XeO₃ (f) CBr₄
- (2) 3. Name the following ionic compounds.
- (a) CuBr₂ (b) FeCl₃
- (c) NH₄CN (d) KNO₂

List names in alphabetical order. **Be sure to staple pages together!**

- (6) 4. For the following covalent compounds, draw the **Lewis dot structure**. Indicate the **geometrical shape** of the molecule in the blank, (while drawing the shape as best you can for the Lewis structure). Draw an **arrow** over each bond in the Lewis dot structure, showing the direction of polarity of the bond (arrow pointing to the more electronegative atom), and tell whether the molecule as a whole will be **polar** or **non-polar**.

Molecular Formula	Lewis Structure	Geometrical Shape	Polar Molecule?
NF₃			
BF₃			
SO₂			
CO₂			