

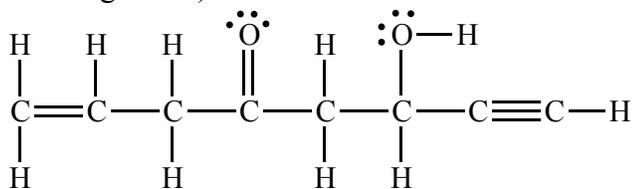
4) Complete the formulas or names of the following (mixed) compounds

Name to Formula	Formula to Name
a. calcium bromide	n. $\text{Sr}(\text{C}_2\text{H}_3\text{O}_2)_2$
b. silver sulfate	o. SrCl_2
c. ammonium chloride	p. MnO_4
d. magnesium hydroxide	q. $\text{Ti}_3(\text{PO}_3)_4$
e. acetic acid	r. H_2Te
f. vanadium(V) oxide	s. $(\text{NH}_4)_2\text{S}$
g. diboron hexahydride	t. PF_3
h. potassium selenide	u. ZnSO_4
i. hydroiodic acid	v. HBrO
j. lead(II) acetate	w. SnF_4
k. barium phosphide	x. CaCrO_4
l. xenon tetrafluoride	y. ClF_5
m. sodium hydrogen carbonate	z. $\text{Au}(\text{CN})_3$

5) Fill in this chart.

Cmpd	Lewis Dot (Show all lone pairs.)	3D diagram Put in δ^+ , δ^- or arrows; indicate polarity.	Electron & Molecular Geometries (of central atom)	hybridization & ~bond angle (109.5° , 120° , 180°)
a) NO_2^+				
b) CH_2O				
c) AsCl_3				
d) CP^-				

6) Draw a 3D model of this molecule. All bond angles should be correct. (Do not show an orbital diagram!!!)

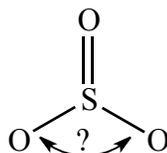


7) Which molecule has a smaller bond angle? Explain.

a)

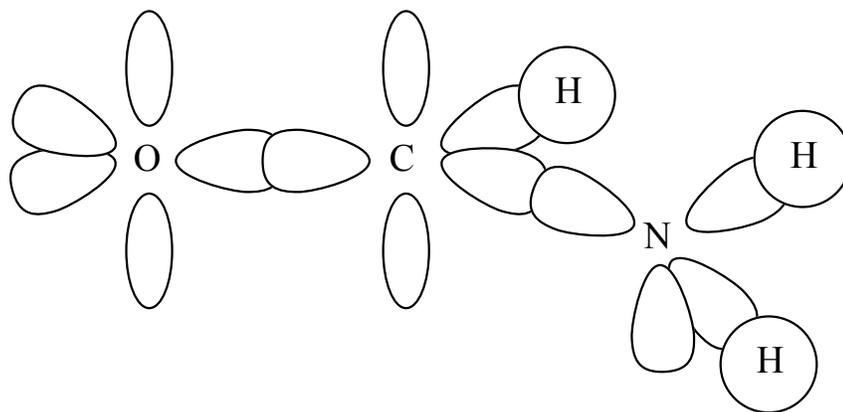
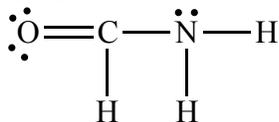


b)



8) What types of bonds (σ and π) make up a triple bond? _____

9) Fill in the orbital diagram for the molecule shown. Enter all electrons. Label all hybrid orbitals (sp^3 , sp^2 , sp), p orbitals and s orbitals. Label the sigma and pi bonds.



10) Determine the type of each substance-- ionic, covalent or metallic

a) PH₃ _____ b) K₃N _____ c) Na _____ d) SO₂ _____

11) Why do nonmetals form covalent bonds with each other while metals with nonmetals form ionic bonds?

12) Explain our model of metallic bonding, which accounts for why metals conduct electricity.