Bonding Homework #1. name: _____

Define	
alloy	
valence orbital	
valence electrons	
coordination number	

What elements make up these particular alloys? (use your BASICS)

brass: _____&_____

cast iron: _____&_____

Atom	Atom Electron Configuration	Ion Symbol	Ion Electron Configuration	What Noble gas is this ion isoelectric to?
Ca	2-8-8-2	Ca^{+2}	2-8-8	Argon
Na				
S				
O				
Al				
Br				
N				
Cl				

Homework #2 name: _____

Write the correct formula for each of these compounds AND draw the Lewis Dot Diagrams
(show proper bracketing and charges for ionic compounds)

aluminum bromide	potassium sulfide
zinc iodide	methane
carbon dioxide	titanium (IV) oxide
copper (I) chloride	water

Bonding Homework #3 name: _____

DEFINE:	Use a complete sentence.
ionic bond	
covalent bond	
electronegativity	
coordination number	
for each of these below, give <u>at least one</u> example of a common substance that fits the vocabulary word	
alloy	
single covalent bond	
double covalent bond	
triple covalent bond	

On the back:

Draw 12 boxes, into each box write the FORMULAS for the following substances,

and Draw the correct LEWIS DOT DIAGRAMS for each

diatomic fluorine, diatomic nitrogen, diatomic hydrogen, diatomic oxygen, water, carbon dioxide, hydrogen monochloride, potassium chloride, aluminum oxide, magnesium chloride, calcium sulfide, and methane

Bonding Homework 4 name: _____

1. On the back: Draw and Name any 5 different Lewis Dot Diagrams that you want, but make sure that you that have an atom, a Cation, an Anion, a MOLECULAR COMPOUND, and an IONIC COMPOUND.

Fill in the chart below. Fill in the chart. Do not say polar when you could say single polar covalent. Do not say double when you mean double nonpolar covalent. Use the bonds' WHOLE NAMES. Don't be lazy. The last one has 2 different bonds in the one molecule, get both names.

	compound name	Formula	Correctly name the bond or bonds correctly full name.
2	sodium fluoride		
3	methane		
4		O_3	
5	silicon dioxide		
6		NH_3	
7	carbon dioxide		
8	sodium hydroxide		
9	aluminum fluoride		
10		LiBr	
11	iron (II) sulfide		
12	carbon tetraiodide		
14	ethyne	C_2H_2	
15	carbon monoxide		

Bonding Homework 5
Fill in this chart, careful with the dots.

name: _____

Write YES/NO or POLAR/NONPOLAR

Molecular Compound	Lewis Dot Diagram	Polar or Non-polar Bonds?	Does this molecule have radial symmetry? Yes or no	Is the molecule polar or non polar?
C_2H_6		C:C C:H		
NI_3				
PH_2F		P:F P:H		
CH_3Br		C:Br C:H		
H_2O				
CO				
CBr_4				
CO_2				