

Bonding Homework #1

name: _____

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

USE DIFFERENT COLORS FOR DIFFERENT IONS.

aluminum bromide _____

potassium sulfide _____

zinc iodide _____

calcium oxide _____

copper (I) chloride _____

titanium (IV) oxide _____

Bonding Homework #2

name: _____

Write the correct formula for each of these ionic compounds AND draw the Lewis Dot Diagrams

(NO bracketing for these molecular — not ionic — compounds)

USE DIFFERENT COLORS FOR DIFFERENT ATOMS.

WATER _____

METHANE _____

CARBON DIOXIDE _____

OXYGEN DIBROMIDE _____

AMMONIA _____

PHOSPHOROUS TRIFLUORIDE _____

Write a formula of a compound that makes each of these bonds.			
single POLAR covalent bond		single NONPOLAR covalent bond	
double POLAR covalent bond		double NONPOLAR covalent bond	
triple POLAR covalent bond		triple NONPOLAR covalent bond	
What are the vocabulary words for these definitions?			
The number of anions surrounding a cation in an ionic solid, or the number of cations surrounding an anion in an ionic solid.			
Two or metals melted together into a mixture with “better” properties — such as less likely to oxidize or more strength. Sometimes this is a metal and a nonmetal.			
The tendency to gain an electron from another atom when making a bond.			
The bond that transfers electrons, and always gets brackets for Lewis Dot Diagrams.			
The bond that shares electrons, and never gets brackets for Lewis Dot Diagrams.			
Reason that almost all atoms bonding, or ions bonding end up with 8 electrons in their outer orbits.			

Bonding Homework #4 name: _____

Draw proper Lewis Dot diagrams, take care for sharing electrons vs. transferring them. All of these follow the octet rule except for the hydrogen atoms. USE DIFFERENT COLORS FOR DIFFERENT ATOMS

Chlorine Cl ₂	Nitrogen N ₂	Hydrogen H ₂
Oxygen O ₂	H ₂ O	CO ₂
Hydrogen monochloride HCl	Methane CH ₄	Hydrogen cyanide HCN
Potassium chloride KCl	Magnesium chloride MgCl ₂	Calcium sulfide CS
Carbon disulfide CS ₂	Silicon Dioxide SiO ₂	Nitrogen tribromide NBr ₃

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.
1	Chromium (VI) fluoride		
2	methane		
3	Ozone		
4	silicon dioxide		
5	ammonia	NH_3	
6	carbon dioxide		
7	sodium hydroxide		
8	aluminum fluoride		
9	Lithium iodide		
10	iron (II) sulfide		
11	Boron tribromide		
12	ethyne	C_2H_2	
14	carbon monoxide		
15	Phosphorous trifluoride		

Bonding Homework #6
 Fill in this chart, careful with the dots.

name: _____
 Write YES or NO — POLAR or NONPOLAR

Molecular Compound	Lewis Dot Diagram USE DIFFERENT COLORS FOR DIFFERENT ATOMS.	Polar or Non-polar Bonds?	Does this molecule have radial symmetry? Yes or no	Is the molecule polar or non polar?
C ₂ H ₆		C:C		
		C:H		
NBr ₃				
PH ₂ F		P:F		
		P:H		
CH ₃ Br		C:Br		
		C:H		
H ₂ O				
CO				
CBr ₄				
CO ₂				