

Name _____ Period _____

College Prep Chemistry of the Earth

Assignment 5L – Hydrates and Atomic Ratios

20 Points

Answer the following questions

Define Each Term and answer the following questions

Anhydrous Compound/Molecule	Hydrated Compound/Molecule / Hydrate

What is the atomic ratio in a anhydrous compound/molecule?	What is the atomic ratio in a hydrated compound/molecule (<i>hydrate</i>)

Give the molecular ratios for, and name each hydrate

$\text{Fe}_2\text{O}_3 \bullet 3\text{H}_2\text{O}$		$\text{MnCl}_2 \bullet 4\text{H}_2\text{O}$	
Hydrate Ratio		Hydrate Ratio	
Fe_2O_3 :	H_2O :	MnCl_2 :	H_2O :
Hydrate Name (Fe = +3)		Hydrate Name (Mn = +4)	

$\text{Na}_2\text{SO}_4 \bullet \text{H}_2\text{O}$		$\text{Zn}_2\text{S}_2\text{O}_3 \bullet 2\text{H}_2\text{O}$	
Hydrate Ratio		Hydrate Ratio	
Na_2SO_4 :	H_2O :	$\text{Zn}_2\text{S}_2\text{O}_3$	H_2O :
Hydrate Name		Hydrate Name (Zn = +1)	

Give the molecular ratios for, and name each hydrate (continued)

$\text{Bi}(\text{NO}_2)_3 \bullet 5\text{H}_2\text{O}$		$\text{Al}_2(\text{SO}_3)_3 \bullet 3\text{H}_2\text{O}$	
Hydrate Ratio		Hydrate Ratio	
$\text{Bi}(\text{NO}_2)_3$:	H_2O :	$\text{Al}_2(\text{SO}_3)_3$:	H_2O :
Hydrate Name (Bi = +3)		Hydrate Name	