Name_____ H. Chem, Period_____

Ionic Hydrate Worksheet

Naming Hydrates

Write the correct numerical prefix for each of the numbers in the table

Number	Prefix
1	mono-
2	di-
3	tri-
4	tetra-
5	penta-
6	hexa-
7	hepta-
8	octa-
9	nona-
10	deca-

Complete each of the following sentences by filling in the appropriate word or phase from the list below.

Cation, hydrates, degree of hydration, anhydrous, anion

1. Ionic compounds that absorb water into their solid structures form substances called _hydrates__
2. A compound that is completely dry or "water –free" is called __anhydrous____
3. When naming an ionic substance, the name of the __cation___ comes first, followed by the name of the ____anion____
4. The prefix in the name of a hydrate indicates the ___degree of hydration___

***Name** the following hydrates:*

$CaCl_2 \bullet 8\ H_2O$ _____calcium chloride octahydrate_____

$FeSO_4 \bullet 6\ H_2O$ _____iron (II) sulfate hexahydrate_____

$LiOH \bullet H_2O$ _____lithium hydroxide monohydrate_____

$PbCl_2 \bullet 3\ H_2O$ _____lead (II) chloride trihydrate_____

$Li_2CrO_4 \bullet 5\ H_2O$ _____lithium chromate pentahydrate_____

$Na_2SO_4 \bullet 10\ H_2O$ _____sodium sulfate decahydrate_____

***Write the formulas** for the following hydrates:*

Barium phosphate dihydrate

$Ba_3(PO_4)_2 \cdot 2H_2O$

Copper(II) sulfate pentahydrate

$CuSO_4 \cdot 5\ H_2O$

Cobalt (II) chloride hexahydrate

$CoCl_2 \cdot 6\ H_2O$

Magnesium sulfate heptahydrate

$MgSO_4 \cdot 7\ H_2O$

Nickel (II) sulfate hexahydrate

$NiSO_4 \cdot 6\ H_2O$

Copper (I) bromide tetrahydrate

$CuBr \cdot 4\ H_2O$