Solubility Rules Worksheet

1. Name or give the chemical formula for each of the following compounds.
2. State whether they are soluble (will dissolve) or insoluble (will not dissolve) in solution. Use solubility rules.

Chemical Formula	Name	Solubility
1. NH_4CH_3COO		
2. $Ba(OH)_2$		
3.	Iron (II) Carbonate	
4. $NaOH$		
5. $RbNO_3$		
6.	Cesium Sulfate	
7. $MgSO_4$		
8. $ZnCl_2$		
9.	Zinc Hydroxide	
10. $Zn_3(PO_4)_2$		
11. $AgBr$		
12. KNO_3		
13. Al_2S_3		
14.	Silver Acetate	
15. Sr_2CrO_4		
16.	Aluminum Phosphate	
17. $BaSO_4$		
18. $Ca(OH)_2$		
19. $BaCO_3$		
20. $MgCrO_4$		
21.	Iron (III) sulfide	
22. NH_4CN		
23.	Silver Iodide	
24. Hg_2SO_4		
25.	Lithium Chloride	

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Double Replacement Reactions

The Cations and Anions switch partners : AB + XY → AY + BX

Ex: $KOH + H_2SO4 \rightarrow K_2SO4 + H_2O$

$FeS + HCl \rightarrow FeCl_2 + H_2S$

Check the oxidation number to calculate the correct number of atoms.

Write correct formulas for the products in these double replacement reactions.

1) $Ca(OH)_2 + H_3PO_4$ --->

2) $K_2CO_3 + BaCl_2$ --->

3) $Cd_3(PO_4)_2 + (NH_4)_2S$ --->

4) $Co(OH)_3 + HNO_3$ --->

5) $AgNO_3 + KCl$ --->

6) $Na_2CO_3 + H_2SO_4$ --->

7) $Al(OH)_3 + HC_2H_3O_2$ --->

8) $Al_2(SO_4)_3 + Ca_3(PO_4)_2$ --->

9) $Cr_2(SO_3)_3 + H_2SO_4$ --->

10) $AgC_2H_3O_2 + K_2CrO_4$ --->

Oxidation states:

Ca^{+2}	OH^{-1}
K^{+1}	PO_4
H^{+1}	CO_3^{-2}
Ba^{+2}	Cl^{-1}
Cd^{+2}	S^{-2}
Co^{+3}	NO_3^{-1}
Ag^{+1}	
Na^{+1}	$SO4^{-2}$
Al^{+3}	$C_2H_3O_2^-$
Cr^{+3}	SO_3^{-2}
$NH4^{+1}$	$CrO4^{-2}$