

READ AND KEEP HANDY THE SOLUBILITY RULES CHART.

SOLUBILITY

Name _____

Classify the following compounds as soluble or insoluble following the rules for solubility.

1. AgNO_3 _____
2. K_2CO_3 _____
3. $\text{Ca}_3(\text{PO}_4)_2$ _____
4. AgCl _____
5. NaOH _____
6. NH_4Cl _____
7. KBr _____
8. MgCO_3 _____
9. FeS _____
10. $\text{CuC}_2\text{H}_3\text{O}_2$ _____
11. $(\text{NH}_4)_2\text{SO}_4$ _____
12. $\text{Ca}(\text{OH})_2$ _____
13. Na_2SO_4 _____
14. BaSO_4 _____
15. KI _____
16. $(\text{NH}_4)_3\text{PO}_4$ _____
17. $\text{Cu}(\text{NO}_3)_2$ _____
18. AlPO_4 _____
19. CaCO_3 _____
20. $(\text{NH}_4)_2\text{S}$ _____

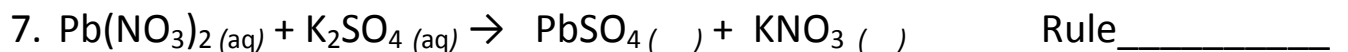
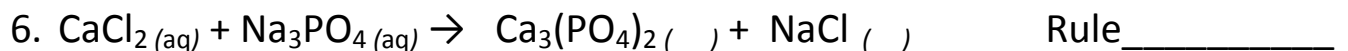
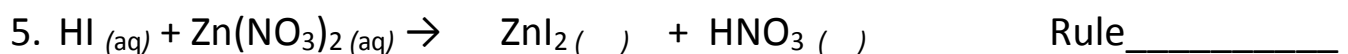
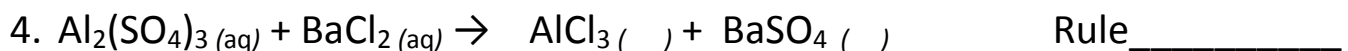
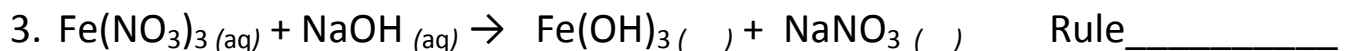
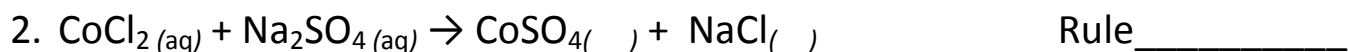
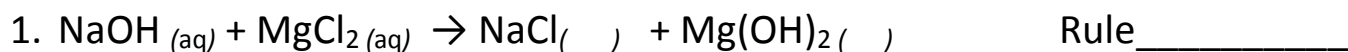
Precipitation Reactions

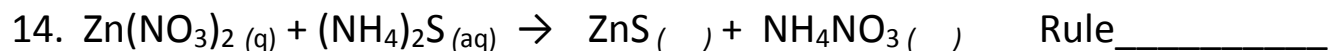
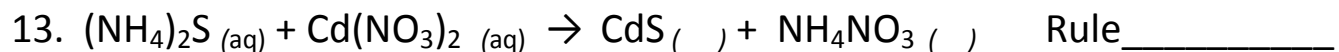
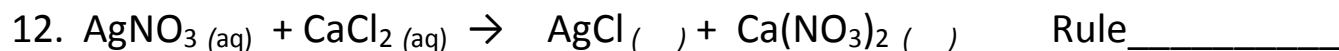
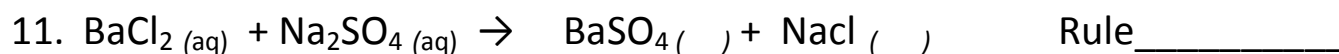
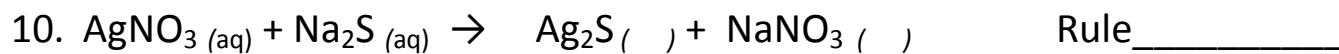
When a double replacement reaction takes place in aqueous solution, it can either form two aqueous products or an aqueous product and a precipitate. A precipitate is a substance that forms in a double replacement reaction and is insoluble in solution.

Instructions:

- 1) Predict the products of the double replacement reactions.
- 2) Use the solubility chart/rules to determine if they are aqueous (*aq*) or solids (*s*).
- 3) Highlight the Salt.
- 4) Tell which rule you used to determine if it is soluble or not. (*I.E. Rule # 3*) If everything is soluble, write "no precipitation."

These may not be balanced, and you do not have to balance them.





Neutralization Reactions

A neutralization reaction is a reaction between an Arrhenius Acid (H^+ or H_3O^+ contributor) and an Arrhenius Base (OH^- contributor) that forms a salt and water. A salt is "an ionic compound composed of a cation from a base and an anion from an acid."

Predict the products of the following neutralization reactions. Highlight the salt that forms in the reaction.

