Name: _			
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## **Precipitation Reactions**

For each of the following aqueous double replacement reactions:

- a) Predict the products by switching the ions and balancing the charges.
- b) Check your solubility rules to see whether any of the products forms a precipitate.
  - Write the phase after each product. If the product is soluble, write (aq) after it. If the product is insoluble, then it precipitates; write (ppt) after it. If the product is a gas, then write (q) after it.
  - If at least one of the products is a precipitate or a gas, the reaction occurs, and you're done.
  - If all of the products are soluble (aqueous), then no reaction occurs. (You just have water with ions floating in it.) Cross out the products and write "N. R." (No Reaction).

1. 
$$Na_2CO_3(aq) + CaCl_2(aq) \longrightarrow$$

2. 
$$(NH_4)_3PO_4(aq) + NaOH(aq) \longrightarrow$$

3. 
$$Ba(C_2H_3O_2)_2(aq) + K_3PO_4(aq) \longrightarrow$$

4. 
$$Ca(MnO_4)_2(aq) + KOH(aq) \longrightarrow$$

5. 
$$AlCl_3(aq) + H_3PO_4(aq) \longrightarrow$$

6. 
$$CaSO_4(aq) + KMnO_4(aq) \longrightarrow$$

7. 
$$\operatorname{NaN}_3(aq) + \operatorname{Ca}(\operatorname{NO}_3)_2(aq) \longrightarrow$$

8. 
$$\operatorname{Sr}(\operatorname{NO}_3)_2(aq) + \operatorname{K}_2\operatorname{Cr}_2\operatorname{O}_7(aq) \longrightarrow$$

9. 
$$NaClO_3(aq) + MgSO_4(aq) \longrightarrow$$

10. 
$$Na_3BO_3(aq) + ZnSO_4(aq) \longrightarrow$$