

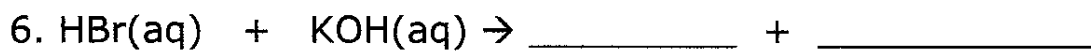
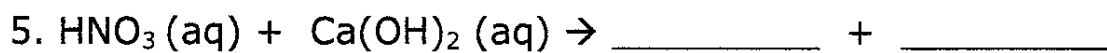
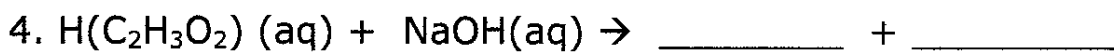
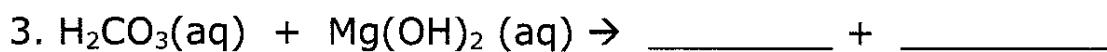
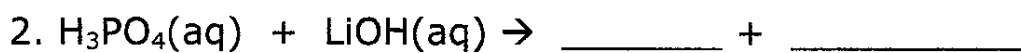
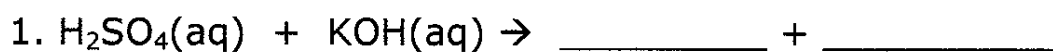
Neutralization

Neutralization:

Acid + Base \rightarrow Salt + water

Neutralization is a form of double replacement

For the following reactions predict the products of these neutralization reactions. Make sure to drop and cross to produce the correct formula.



Name: _____

Date: _____

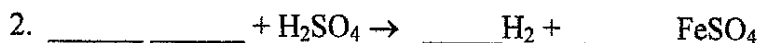
Reactions of Acids and Bases

Reactions of Acids with Metals

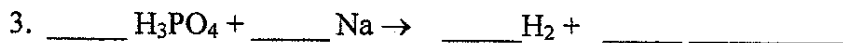
Complete each of the following reactions between an acid and metal by filling any missing reactants and products and balancing the complete equation. Be sure to check table J to ensure that a reaction does occur.



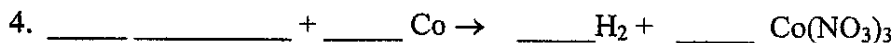
Name the salt formed as a result of this reaction: _____



Name the salt formed as a result of this reaction: _____



Name the acid that reacted with sodium in this reaction: _____



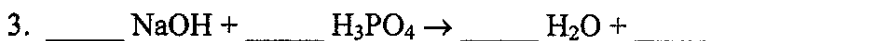
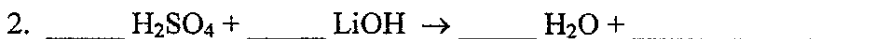
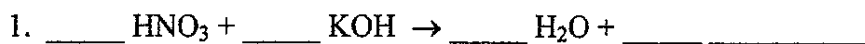
Name the salt formed as a result of this reaction: _____

Name the acid that reacted with cobalt in this reaction: _____



Neutralization Reactions

Complete each of the following neutralization reactions by filling any missing reactants and products and balancing the complete equation.



5. Write the complete balanced equation for the reaction between hydrochloric acid and magnesium hydroxide.

1. Which salt is formed when hydrochloric acid is neutralized by a potassium hydroxide solution?

1. potassium chloride
2. potassium chlorate
3. potassium chlorite
4. potassium perchlorate

2. Which type of reaction will occur when equal volumes of 0.1 M HCl and 0.1 M NaOH are mixed?

1. neutralization
2. ionization
3. electrolysis
4. hydrolysis

3. Which balanced equation represents a neutralization reaction?

1. $\text{H}_2\text{SO}_4 + 2\text{LiOH} \rightarrow \text{Li}_2\text{SO}_4 + 2\text{H}_2\text{O}$
2. $\text{BaCl}_2 + \text{Cu}(\text{NO}_3)_2 \rightarrow \text{Ba}(\text{NO}_3)_2 + \text{CuCl}_2$
3. $2\text{KClO}_3 \rightarrow 2\text{KCl} + 3\text{O}_2$
4. $\text{Mg} + \text{NiCl}_2 \rightarrow \text{MgCl}_2 + \text{Ni}$

4. When $\text{NaOH}(\text{aq})$ reacts completely with $\text{HCl}(\text{aq})$ and the resulting solution is evaporated to dryness, the solid remaining is

1. an ester
2. an alcohol
3. a salt
4. a metal

5. Which substance is always produced in the reaction between hydrochloric acid and sodium hydroxide?

1. water
2. hydrogen gas
3. oxygen gas
4. a precipitate