

GENERAL CHEMISTRY STANDARD 12.5

12.5: Determine the products of an acid-base neutralization reaction

PRODUCTS OF AN ACID/BASE REACTION

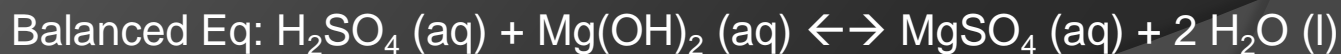
- An acid-base reaction is called a **neutralization reaction**
 - The products are always the same:
 - Water
 - An ionic salt
- The reaction will always proceed with one hydrogen leaving the acid and going to the base

EXAMPLES

- Determine the products of the following acid/base neutralization reactions:
 - $\text{HI (aq)} + \text{KOH (aq)} \rightarrow$
 - HI is the acid
 - KOH is the base
 - HI will lose an H, KOH will lose the OH, K will bond ionically with I, and H_2O left:



- $\text{H}_2\text{SO}_4 \text{ (aq)} + \text{Mg(OH)}_2 \text{ (aq)} \rightarrow$
 - H_2SO_4 is the acid
 - Mg(OH)_2 is the base



TRY IT YOURSELF

- Determine the products of the following acid/base neutralization reactions:
 - $\text{H}_2\text{CO}_3 (\text{aq}) + \text{Ca}(\text{OH})_2 (\text{aq}) \rightarrow$
 - $\text{HNO}_3 (\text{aq}) + \text{NH}_3 (\text{aq}) \rightarrow$
 - $\text{HCl} (\text{aq}) + \text{NaOH} (\text{aq}) \rightarrow$
 - $\text{HF} (\text{aq}) + \text{Mg}(\text{OH})_2 (\text{aq}) \rightarrow$
 - $\text{H}_2\text{SO}_4 (\text{aq}) + \text{LiOH} (\text{aq}) \rightarrow$

TRY IT YOURSELF SOLUTIONS

- Determine the products of the following acid/base neutralization reactions:

