

What is neutralization?

Lesson Review

Complete the following.

1. When hydrochloric acid and sodium hydroxide are mixed together, they form _____ and water.
2. A neutralization reaction always forms water and a _____.
3. The reaction between an acid and a base forms a _____ substance.
4. When blue litmus paper is put in a solution of table salt and water the color of the paper _____.
5. A substance produced when an acid reacts with a base is a _____.
6. When acids and bases are mixed, a _____ reaction occurs.
7. When red litmus paper is put in a solution of table salt and water, the color of the paper _____.
8. Salt water is a _____ substance.
9. A salt includes the _____ ion from an acid.
10. Sodium chloride is commonly known as _____.

Skill Challenge

Skills: *synthesizing, relating*

Match each of the following products with the acids and bases that react to form them in a neutralization reaction.

| | Acids and Bases | Products |
|-------|---|--|
| _____ | 1. $\text{HCl} + \text{KOH}$ | a. $\text{MgCl}_2 + 2\text{H}_2\text{O}$ |
| _____ | 2. $\text{Mg}(\text{OH})_2 + 2\text{HCl}$ | b. $\text{NaCl} + \text{H}_2\text{O}$ |
| _____ | 3. $\text{HNO}_3 + \text{NH}_4\text{OH}$ | c. $\text{KCl} + \text{H}_2\text{O}$ |
| _____ | 4. $\text{HCl} + \text{NaOH}$ | d. $\text{NH}_4\text{NO}_3 + \text{H}_2\text{O}$ |