

SECTION
1**Reinforcement****Acids and Bases****CHAPTER**
22.1
REVIEW

Directions: Decide whether each item listed below refers to an acid, a base, or both an acid and a base. Write your answer in the space provided using the letters in the key.

KEY: A = acid B = base AB = acid and base

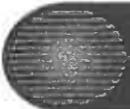
- _____ 1. sour taste
- _____ 2. bitter taste
- _____ 3. produces hydrogen ions in solution
- _____ 4. is often corrosive
- _____ 5. is slippery
- _____ 6. can cause severe burns and tissue damage
- _____ 7. exists as a crystalline solid in an undissolved state
- _____ 8. produces hydroxide ions in solution
- _____ 9. reacts with a predictable indicator to produce a color change
- _____ 10. Soaps are an example.
- _____ 11. may be used to make fertilizer
- _____ 12. gastric juice in stomach
- _____ 13. produces hydronium ions
- _____ 14. Most compounds that produce this in aqueous solution are ionic.
- _____ 15. a solution that contains more H_3O^+ ions than OH^- ions.
- _____ 16. HCl is an example.
- _____ 17. Ammonia is a common example.

Directions: Answer the questions on the lines provided.

18. Use the information above to identify four properties that acids and bases have in common.

19. Identify three facts about acids that are NOT true of bases.

20. Identify three facts about bases that are NOT true of acids.

 Chapter
Review**Acids, Bases, and Salts****Part A. Vocabulary Review**

Directions: In each of the following statements, a key term has been scrambled. Unscramble each term and write it on the line provided.

- _____ 1. A substance that produces H^+ ions in solution is a(n) *dica*.
- _____ 2. Solutions with ions that react with acids or bases to lessen their effects are *fabrefs*.
- _____ 3. These cleansers, known as *spoas*, contain fatty acids that mix easily with dirt and oil.
- _____ 4. A substance that produces OH^- ions in solution is a(n) *sabe*.
- _____ 5. H_3O^+ is the notation for the *hondymuir oin*.
- _____ 6. A substance that changes color in an acid or a base is a(n) *troincadi*.
- _____ 7. An acid that almost completely ionizes in solution is a(n) *gronts* acid.
- _____ 8. An acid that only partly ionizes in solution is a(n) *kwea* acid.
- _____ 9. A(n) *trogns seba* ionizes completely in solution.
- _____ 10. A(n) *akew sabe* does not ionize completely in solution.
- _____ 11. *Hp* is a measure of the hydronium ions in a solution.
- _____ 12. A chemical reaction between an acid and a base is *zealuntnotiari*.
- _____ 13. When the negative ions of an acid and the positive ions of a base combine, a(n) *slat* and water are formed.
- _____ 14. The process in which a solution of known concentration is used to find the concentration of a second solution is called *traintiot*.
- _____ 15. Substances made when sodium or potassium hydroxide reacts with fatty acids are called *spoas*.
- _____ 16. Organic salts similar to soaps are *greettends*.
- _____ 17. *Omimunam* salts are not formed from a metal ion.

**SCIENCE 9
STUDY GUIDE
ACIDS**

TRUE AND FALSE: CORRECT THE FALSE STATEMENTS.

- _____ 1. Acids are always dangerous to handle.
- _____ 2. A dilute acid has a small amount of acid dissolved in a large amount of water.
- _____ 3. Lemon juice would turn blue litmus to red.
- _____ 4. If you add sulfuric acid to magnesium metal, oxygen gas forms.
- _____ 5. Phenolphthalein is colorless in an acid solution.
- _____ 6. HCN could be a formula for an acid.
- _____ 7. Vinegar would not contain an acid.
- _____ 8. An acid solution contains an excess amount of H⁺ ions.
- _____ 9. An indicator is a substance that changes color in the presence of an an acid.
- _____ 10. The formula for sulfuric acid is HCl.

COMPLETION:

1. Acids taste _____.
2. Acids turn _____ litmus paper to a _____ color.
3. Litmus paper and phenolphthalein are known as _____.
4. If an iron nail is placed into a solution of hydrochloric acid, _____ gas is released.
5. When an acid destroys a metal, the process is called _____.
6. The element that is found in the formula of all acids is _____.
7. When acids are placed into water they release the _____ ion.
8. The most dangerous test for an acid would be _____.
9. What is the difference between a weak acid and a strong acid?

4. pH: ACID OR BASE?

Review and Test Questions

TRUE OR FALSE: Determine whether each of the following is true or false. For each false statement, change the underlined word(s) to the correct word(s).

1. A strong acid gives off many hydroxide ions in water.
2. The pH of a solution is found to be 5.5. This means the solution is basic.
3. A pH of 10 is more basic than a pH of 8.
4. Club soda is shown to have a pH of about 4, so club soda is an acidic solution.
5. The pH of a dilute solution of calcium hydroxide would be greater than 7.
6. The pH of a vinegar solution would be greater than 7.
7. A low pH tells you that few hydrogen ions are present.
8. As a solution gets more basic, its pH decreases.
9. Air pollution from industry often causes rainwater to become acidic.
10. Unpolluted rainwater is slightly acidic.

COMPLETION: Write in the word(s) which best complete(s) each statement.

1. You can think of pH as the _____ of hydrogen ions.
2. A solution with a pH of 6 is a (strong, weak) _____ acid.
3. Methyl violet, which changes color at different pH's is known as a(n) _____.
4. The pH of pure water should be _____.
5. An electrical device which can measure the pH is called a(n) _____.
6. A _____ gives off many hydroxide ions in water.
7. If you mix equal amounts of sodium hydroxide with hydrochloric acid, the pH will be _____.
8. If vinegar is added to a potassium hydroxide solution, the pH _____.
9. The pH of your blood should be between _____ and _____.
10. The pH of a sample of polluted rainwater is found to be 2. This means the rain is _____.