

All about Acid & Base Quiz

Name:

Date:

A. Multiple Choice. Encircle the letter that corresponds to the correct answer.

1. Bases react with _____.
 - a. neither acids, salts, nor water
 - b. water to produce acids and salts
 - c. salts to produce acids and water
 - d. acids to produce salts and water
2. Which of the following is *false* about acids and bases?
 - a. Acids are substances that donate protons.
 - b. Bases are substances that accept electrons.
 - c. A base is any substance that produces OH^- in aqueous solutions.
 - d. An acid is any substance that produces H^+ when dissolved in water.
3. Which type of reaction always forms a salt and water?
 - a. exothermic
 - b. neutralization
 - c. oxidation
 - d. polymerization
4. One of the physical properties that all acids have is _____.
 - a. being colorless
 - b. bitter taste
 - c. color
 - d. sour taste
5. Which ion do bases contain?
 - a. H^+
 - b. H_3O^+
 - c. NH_4^+
 - d. OH^-
6. Acids turn litmus paper into _____.
 - a. blue
 - b. red
 - c. violet
 - d. yellow
7. Which of the following is a characteristic of bases?
 - a. dry
 - b. moist
 - c. rough
 - d. slippery
8. A pure substance made of two or more elements that are chemically combined is called _____.
 - a. compound
 - b. mixture
 - c. solution
 - d. suspension
9. How is a mixture different from a compound?
 - a. Mixtures are commonly found in nature.
 - b. Mixtures have two or more components.
 - c. Solids, liquids, and gases can form a mixture.
 - d. Each substance in a mixture keeps most of its characteristic properties.

- ☐ 10. Metals, nonmetals, and metalloids are characteristic properties of _____.
a. alloys
b. compounds
c. elements
d. mixtures
- ☐ 11. Which of the following substances can be separated into simpler substances only by chemical means?
a. magnesium
b. salt water
c. silver
d. water
- ☐ 12. A(n) _____ can be separated by filtration.
a. alloy
b. compound
c. element
d. mixture
- ☐ 13. Which of the following is *not* considered a mixture?
a. emulsion
b. potassium chloride
c. shaving cream
d. tea
- ☐ 14. Which of the following lists contain pure elements?
a. air, water, oxygen
b. air, water, fire, earth
c. hydrogen, oxygen, brass
d. sodium, nitrogen, oxygen
- ☐ 15. Matter is defined as anything that _____.
a. has mass
b. occupies space
c. both A and B
d. none of these
- ☐ 16. A pH scale reading of less than 7 at 25°C indicates a(an) _____ medium.
a. acidic
b. basic
c. neutral
d. unknown
- ☐ 17. Phenolphthalein solution turns bases _____.
a. colorless
b. green
c. reddish pink
d. yellow
- ☐ 18. A pH scale reading of _____ indicates a weak base.
a. 2
b. 6
c. 8
d. 13
- ☐ 19. Methyl orange solution turns bases _____.
a. colorless
b. orange
c. pink
d. yellow
- ☐ 20. Acetic acid is a weak acid, while _____ is a strong acid.
a. boric acid
b. carbonic acid
c. hydrochloric acid
d. oxalic acid