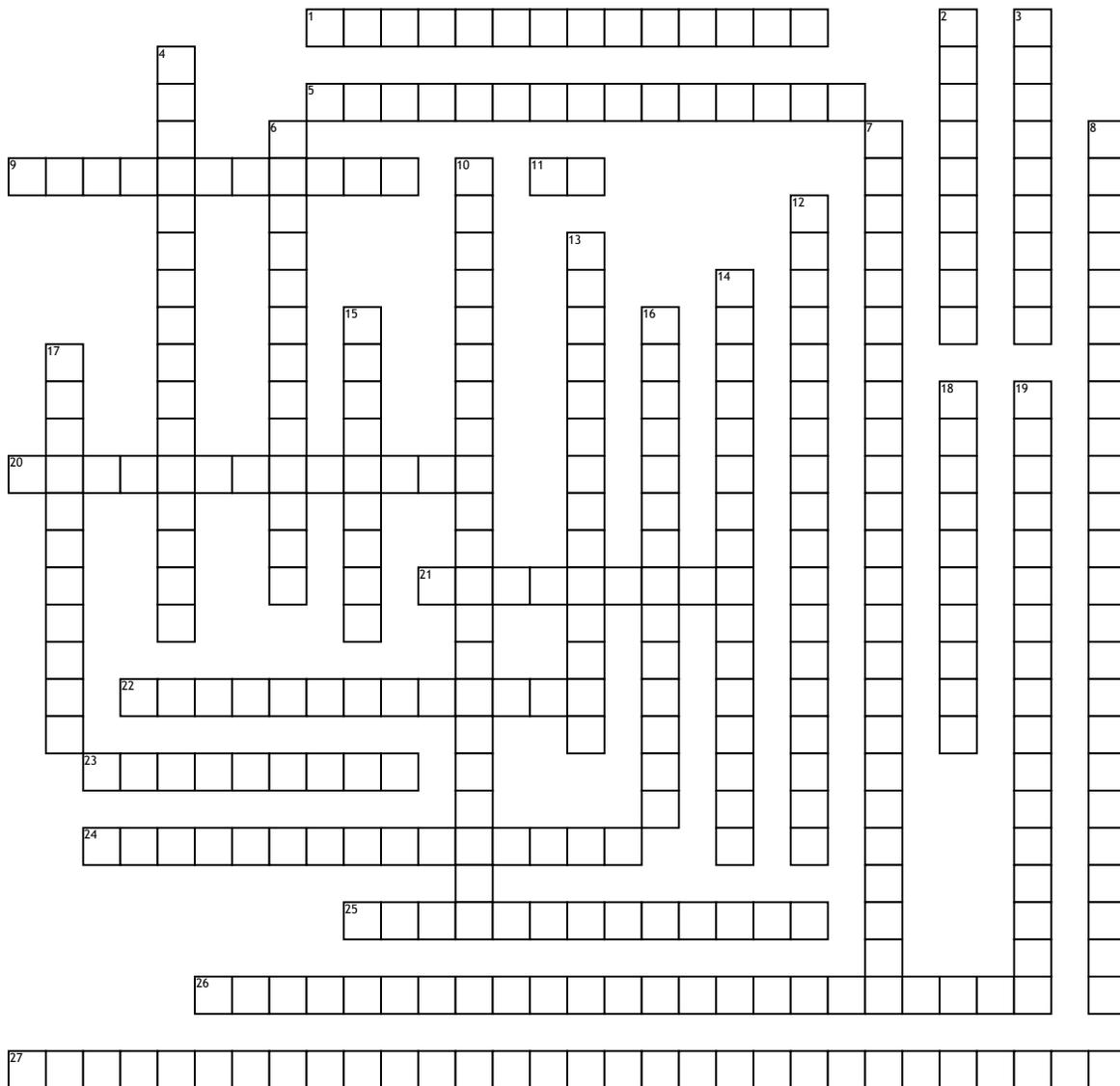


Chapter 19



Across

1. is one in which $[H^+]$ is greater than $[OH^-]$.
5. Any aqueous solution in which $[H^+]$ and $[OH^-]$ are equal
9. dissociate completely into metal ions and hydroxide ions in aqueous solution
11. of a solution is the negative logarithm of the hydrogen-ion concentration
20. is the particle that remains when an acid has donated a hydrogen ion
21. The process of adding a known amount of solution of known concentration to determine the concentration of another solution
22. is the particle formed when a base gains a hydrogen ion
23. ionize only slightly in aqueous solution
24. Acids that contain one ionizable hydrogen, such as nitric acid (HNO_3)
25. Acids that contain two ionizable hydrogens, such as sulfuric acid (H_2SO_4)

26. however, reactions in which an acid and a base react in an aqueous solution to produce a salt and water

27. The product of the concentrations of the hydrogen ions and hydroxide ions in water

Down

2. is a substance that can accept a pair of electrons to form a covalent bond
3. is a substance that can donate a pair of electrons to form a covalent bond
4. The solution of known concentration
6. is one in which $[H^+]$ is less than $[OH^-]$
7. is the ratio of the concentration of the conjugate acid times the concentration of the hydroxide ion to the concentration of the conjugate base.
8. is the ratio of the concentration of the dissociated (or ionized) form of an acid to the concentration of the undissociated (nonionized) form

10. consists of two substances related by the loss or gain of a single hydrogen ion

12. A water molecule that gains a hydrogen ion becomes a positively charged

13. Acids that contain three ionizable hydrogens, such as phosphoric acid (H_3PO_4)

14. is when the number of moles of hydrogen ions equals the number of moles of hydroxide ions.

15. react with water to form the hydroxide ion and the conjugate acid of the base.

16. The reaction in which water molecules produce ions

17. completely ionized in aqueous solution

18. A substance that can act as both an acid and a base

19. The $[H^+]$ of a basic solution is less than 10^{-7} M. Basic solutions