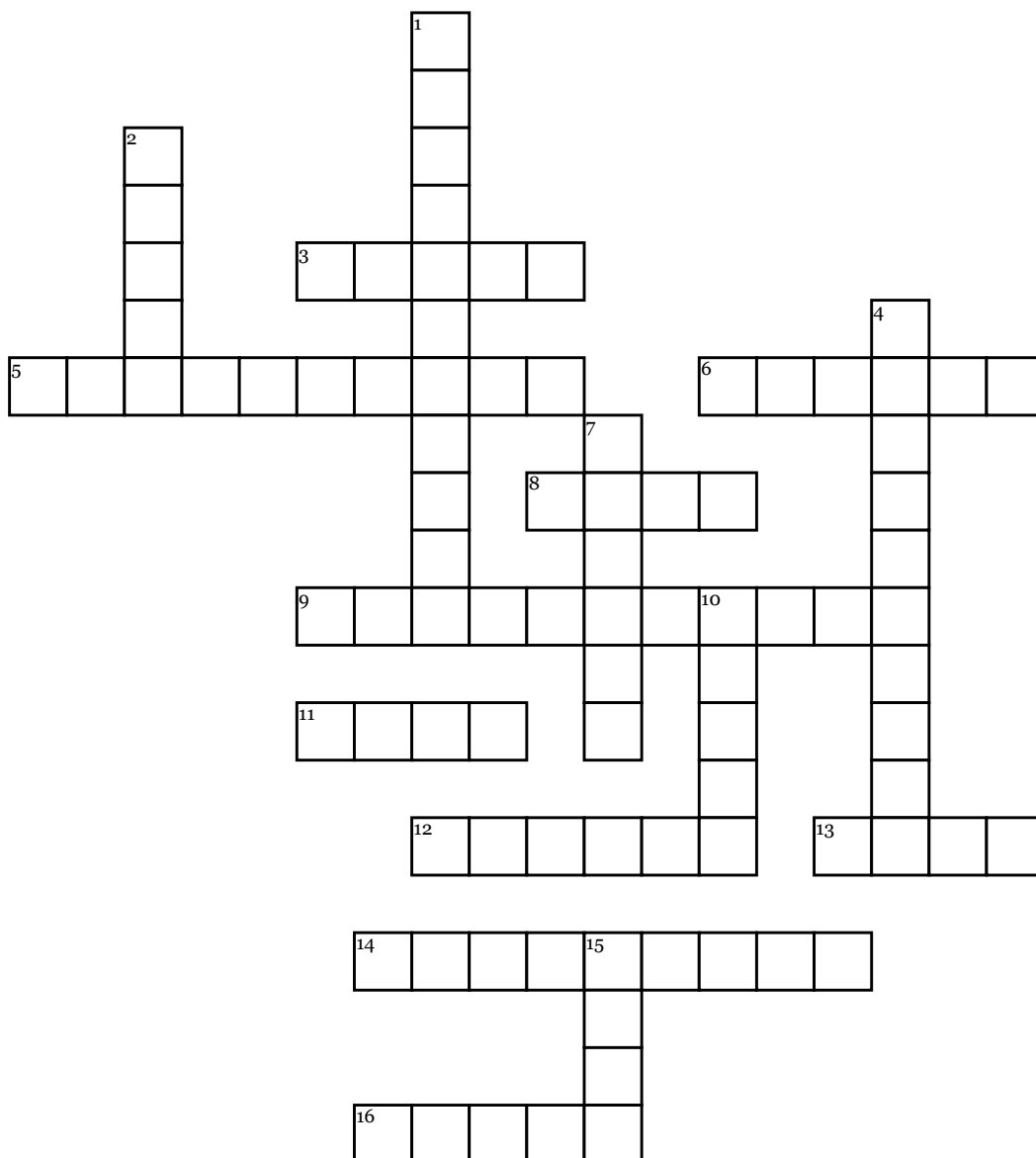


# ACIDS AND BASES CROSSWORD



## Across

- 3.** Which law of thermodynamics states that the entropy of a pure perfect crystal at 0 K is zero.
- 5.** a specific microscopic configuration describing how the particles of a system are distributed among the available energy levels.
- 6.** The conjugate base of a weak acid is a \_\_\_\_\_ base
- 8.** Under the Bronsted-Lowry theory, An \_\_\_\_\_ is a proton acceptor.
- 9.** Whose principle states that when a system at equilibrium is subjected to a stress, the equilibrium will shift to relieve the effects of the stress
- 11.** The conjugate base of a strong acid is a \_\_\_\_\_ base

- 12.** Many \_\_\_\_\_ act as bases in water.
- 13.** Under the Bronsted-Lowry theory, An \_\_\_\_\_ is a proton donor.
- 14.** Substances on the left side of the Equation
- 16.** True or False. The first ionization step is approximately 100% for H<sub>2</sub>SO<sub>3</sub>.
- ## Down
- 1.** A molecule is a molecule that has both polar and non-polar parts.
- 2.** If an equal number of moles of the weak acid HCN and the strong base KOH are added to water, is the resulting solution acidic, basic, or neutral?
- 4.** specific acids that are capable of losing more than a single proton per molecule in acid-base reactions.

- 7.** Subtracting the vapor pressure of water from the total pressure of a gas collected over water is an example of the application of \_\_\_\_\_'s law.
- 10.** In the reaction  $\text{BF}_3 + \text{NH}_3 \rightleftharpoons \text{F}_3\text{B}:\text{NH}_3$ , BF<sub>3</sub> acts as \_\_\_\_\_ acid
- 15.** When comparing binary acids of the elements in the same row of the periodic table, acid strength increases as the polarity of the element-hydrogen bond increases.