fied. The prediction based upon the empirical definition of a buffer was accurate. It appears that we can continue to have confidence in this concept.

CHAPTER 8 SUMMARY

MAKE A SUMMARY

(Page 630)

(Answers may vary, but should include a page for each of the following six sections: The Nature of Acid–Base Equilibria; Weak Acids and Bases; Acid–Base Properties of Salt Solutions; Acid–Base Titration; Buffers; and The Science of Acid Deposition.)

CHAPTER 8 SELF-QUIZ

(Page 631)

1. False. The stronger a Brønsted–Lowry acid is, the weaker its conjugate base.
2. False. Group I metal ions produce neutral solutions.
3. True
4. True
5. False. A solution of the bicarbonate ion is basic.
6. False. The pH of water would be less than 7.
7. True
8. False. Most dyes that act as acid–base indicators are weak acids.
9. True
10. (b)
11. (b)
12. (e)
13. (a)
14. (b)
15. (c)
16. (e)
17. (a)
18. (b)
19. (a)

CHAPTER 8 REVIEW

(Page 632)

Understanding Concepts

1. $n_{NaOH} = \dfrac{8.50\text{ g}}{40.00\text{ g/mol}}$

   $n_{NaOH} = 0.2125\text{ mol}$ (extra digits carried)

   $[OH^-] = \dfrac{0.2125\text{ mol}}{0.500\text{ L}}$

   $[OH^-] = 0.425\text{ mol/L}$

   $pOH = -\log 0.425$

   $pOH = -0.372$

   The pOH of sodium hydroxide is –0.372.