

## Section Review

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### Solutions of Acids and Bases

#### USING KEY TERMS

1. Use the following terms in the same sentence: *neutralization reaction* and *salt*.

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#### UNDERSTANDING KEY IDEAS

- \_\_\_\_\_ 2. A neutralization reaction
- a. includes an acid and a base.
  - b. produces a salt.
  - c. forms water.
  - d. All of the above
3. Explain the difference between a strong acid and a weak acid.

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#### MATH SKILLS

4. For each point lower on the pH scale, the hydrogen ions in solution increase tenfold. For example, a solution of pH 3 is not twice as acidic as a solution of pH 6 but is 1,000 times as acidic. How many times more acidic is a solution of pH 2 than a solution of pH 4? Show your work below.

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**CRITICAL THINKING**

5. **Analyzing Processes** Predict what will happen to the hydrogen ion concentration and the pH of water if hydrochloric acid is added to the water.

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6. **Analyzing Relationships** Would fish be healthy in a lake that has a low pH? Explain.

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7. **Applying Concepts** Soap is made from a strong base and oil. Would you expect the pH of soap to be 4 or 9? Explain.

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