Name_____ Hour_____

Section 2-2

Active Reading

Section: Water and Solutions

Read the passage below. Notice that the sentences are numbered. Then answer the questions that follow.

[1] Compounds that form extra hydronium ions when dissolved in water are called **acids.** [2] When an acid is added to water, the concentration of hydronium ions in the solution is increased above that of pure water. [3] In contrast, compounds that form extra hydroxide ions when dissolved in water are called **bases.** [4] Many bases contain hydroxide ions.

[5] The **pH** scale measures the concentration of hydronium ions in solutions. [6] Most solutions have a pH value between 0 and 14. [7] Pure water has a pH value of 7. [8] Acidic solutions have pH values below 7, and basic solutions have pH values above 7. [9] Stomach acid has a pH value of about 2 (very acidic). [10] Blood has a pH value of about 7.5 (slightly basic). [11] Household ammonia, which is very basic, has a pH value of about 12.

SKILL: RECOGNIZING CAUSE AND EFFECT

Read each question, and write your answer in the space provided.

1. What vocabulary words are contained in this passage? How do you know the words are vocabulary?

_____

_____

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2. Define each vocabulary word.

_____

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3. A cause-and-effect relationship is identified in Sentence 2. What is the effect of adding an acid to water?

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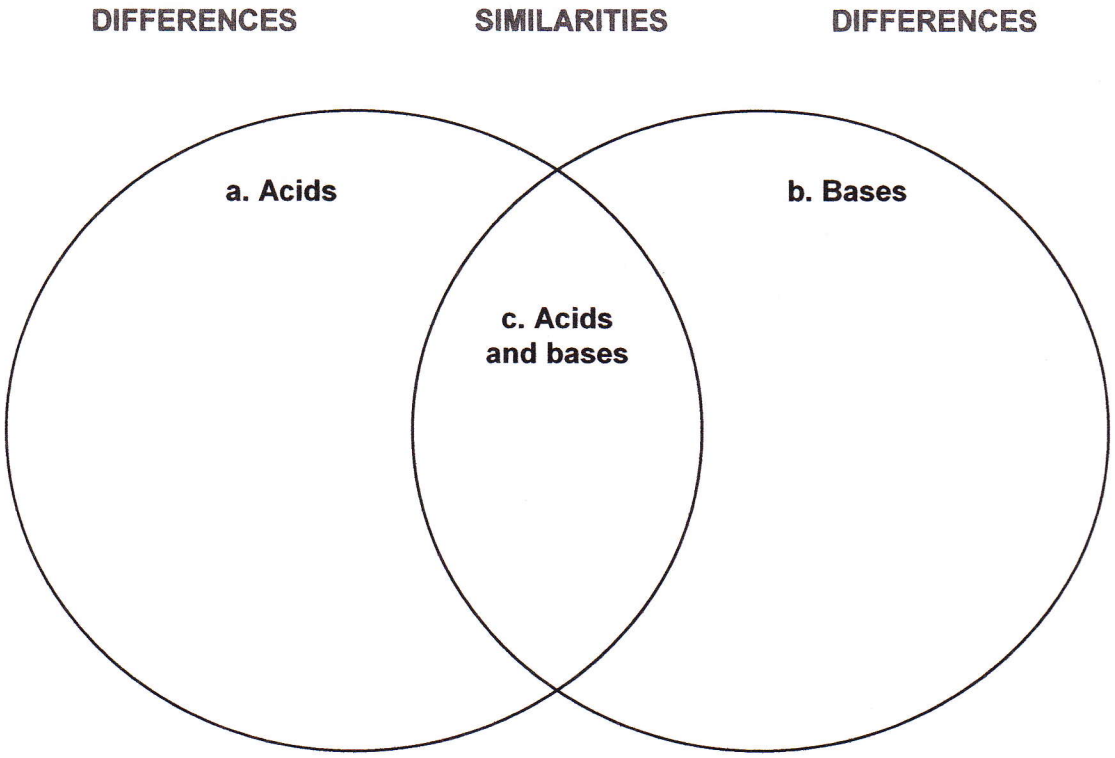
_____

Name_____ Hour_____

Active Reading *continued*

SKILL: RECOGNIZING SIMILARITIES AND DIFFERENCES

4. A Venn diagram is a type of graphic organizer used to identify similarities and differences between two concepts. Read each statement, and write your answer in the appropriate place on the diagram.
   a. In the left oval, list the key traits of acids.
   b. In the right oval, list the key traits of bases.
   c. In the area formed by the overlapping ovals, list traits shared by both acids and bases.



In the space provided, write the letter of the number that best answers the question.

_____ 5. Which of the following pH values indicates a slightly acidic solution?
   a. 3
   b. 6.5
   c. 9
   d. 11