

Name \_\_\_\_\_

Date \_\_\_\_\_ Per \_\_\_\_\_

\_\_\_\_\_ not be found in your textbook.

**Lesson Standards: M8.D.2.2.1**

Sponge Problems

1. Liang got an answer of about 3.87 when she took the square root of 15 using her calculator. She was worried that she didn't use the calculator correctly. Which of the following statements most likely explains if her answer is correct or not correct?

(M8.A.1.1.2)

- A. It is not correct because the answer should be a whole number.
  - B. It is correct because 3 squared is 9 and 4 squared is 16.
  - C. It is not correct because the answer should be closer to 3.
  - D. It is correct because 15 is an odd number.
2. What number represents  $4.5 \times 10^4$  written in standard notation? (M8.A.1.1.1)
- A. 0.000045   B. 0.00045   C. 45,000   D. 450,000

Section Problems

**Write each as an algebraic expression.**

- |                               |                             |
|-------------------------------|-----------------------------|
| 3. the difference of 10 and 5 | 4. the quotient of 14 and 7 |
| 5. $u$ decreased by 17        | 6. half of 14               |
| 7. $x$ increased by 6         | 8. the product of $x$ and 7 |
| 9. the sum of $q$ and 8       | 10. 6 squared               |
| 11. twice $q$                 | 12. $n$ cubed               |

**Write each algebraic expression as a word phrase.**

- |                   |             |
|-------------------|-------------|
| 13. $\frac{x}{2}$ | 14. $a + 9$ |
|-------------------|-------------|

16.  $5n$

17.  $q^2$

18.  $\frac{40}{5}$

19.  $\frac{a}{8}$

20.  $x + 8$

21.  $x^3 - 7$

22.  $n * 6$

**Evaluate each expression.**

23. 5 squared

24. the product of 8 and 10

25. 20 decreased by 17

26. the quotient of 96 and 8

27. twice 6

28. 10 less than 17

29. 9 times 5

30. 10 increased by 8