Chapter 2: Review

Name_____

Date_____

Completing this review counts toward your lab grade.

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Solve the problem by combining like terms.

1) Given the following quadrilateral, express the perimeter, or total distance around the figure, as an algebraic expression containing the variable x.



Solve the equation.

2) 10 + 6p = 7p

3)
$$\frac{n}{4} = 10$$

4) $\frac{1}{5}f - 3 = 1$

Write the quantity in the problem as an algebraic expression, simplified if necessary.

5) In the race for Student Body President, Jose received 237 more votes than Angela. If Angela received x votes, how many votes did Jose receive?

Solve the equation.

6) 5(y+6) = 6(y-2)

7) -2x + 4(-2x - 5) = -21 - 9x

8) $\frac{2x}{5} - \frac{x}{3} = 5$

9) Explain the difference between simplifying an expression and solving an equation.

Solve the problem.

10) A storage room holds both algebra and history text books. Let x represent the number of algebra books in the storage room. Suppose that "the number of algebra books" minus 39 is the same as twice "the number of history books" plus 13. If the storage room has 81 history books, how many algebra books does it have?

11) There are 14 more sophomores than juniors in an 8 AM algebra class. If there are 84 students in this class, find the number of sophomores and the number of juniors in the class.

12) A promotional deal for long distance phone service charges a \$15 basic fee plus \$0.05 per minute for all calls. If Joe's phone bill was \$53 under this promotional deal, how many minutes of phone calls did he make? Round to the nearest integer, if necessary.

Solve the problem using a known formula.

13) How long would it take to drive 280 miles if your average rate of speed was 40 miles per hour?

Solve the problem.

14) Jeans are on sale at the local department store for 25% off. If the jeans originally cost \$56, find the sale price.

- 15) Of the 150 students in an algebra class, 18 of them received an A on the mid-term exam. What percent of the algebra students received an A on the exam?
- 16) Solve -0.3(x 4) + x = 0.5(3 x)

Answer Key Testname: CHAP2REVIEW.TST

- 1) Answer: (6x + 4) inches
- 2) Answer: 10
- 3) Answer: 40
- 4) Answer: 20
- 5) Answer: (x + 237) votes
- 6) Answer: 42
- 7) Answer: 1
- 8) Answer: 75
- 9) Answer: Simplifying an equation is getting rid of parentheses and combining like terms, but there is no solution to a variable and no equal sign. An equation has an equal sign and can be solved for a certain variable.
- 10) Answer: 214 algebra books
- 11) Answer: 49 sophomores; 35 juniors
- 12) Answer: 760
- 13) Answer: 7 hours
- 14) Answer: \$42.00
- 15) Answer: 12%
- 16) Answer: x = 0.25