Name _____ Date _____

Unit 5 Review

Puzzle Time

Did You Hear About The Pig That Built Himself A Home?

A	**B**	**C**	**D**	**E**	**F**
G	**H**	**I**	**J**	**K**	**L**
M					

Complete each exercise. When **A-M** are complete, find the answer in the answer sheet. Write the word under the answer in the box containing the exercise letter.

Tell whether the ordered pair is a solution to the system of linear equations.

A. $(5, -8)$; $9x + 7y = -11$
$-2x - 5y = 30$

B. $(16, 1)$; $y = -\frac{1}{4}x + 5$
$y = \frac{1}{6}x - 2$

Solve the system of linear equations by graphing. Check your solution.

C. $y = -2x - 4$
$y = 3x + 1$

D. $x + 2y = 12$
$x - 2y = -12$

Solve the system of linear equations by substitution. Check your solution.

E. $3x + 2y = 12$
$y = x - 9$

F. $x = 6 + 2y$
$-3x + 14y = -18$

G. The physical education instructor asked each student to do a total of 36 pull-ups and push-ups in 1 minute. The instructor wanted students to do 8 times as many push-ups as pull-ups. Write a system of linear equations that represents this situation. How many pull-ups and push-ups were required in 1 minute?

Solve the system of linear equations by elimination. Check your solution.

H. $4x - 5y = 9$
$-8x + 10y = -18$

I. $8x + \frac{1}{2}y = 32$
$-x - \frac{1}{2}y = -4$

J. On one reading list, there were a total of 12 fiction and nonfiction books. On the second reading list, there were 2 times as many fiction books and 3 times as many nonfiction books, making a total of 28 books on the second reading list. Solve a system of linear equations to find the number of fiction and nonfiction books on the first reading list.

Solve the equation. Check your solution.

K. $4x - 5 = 4x + 1$

L. $\frac{1}{2}x - 9 = 13 - 5x$

M. $-\frac{1}{5}(5x - 10) = x + 14$