Pre-Calculus w/Trig Peto
Linear Review Worksheet Day 2

Name _____
Date _____ Period _____

*OBJECTIVE: You will be able to solve a system of linear equations.*

1. Solve each system of equations with two variables by using substitution and/or elimination.

a. $x = 6 - y$
$3x - 4y = 4$

b. $-2x - 3y = -11$
$-4x + 10y = 26$

c. $4x + 6y = 18$
$6x + 9y = 18$

2. Solve each system of equations with three variables. Show all work.

a. $4x - 3y + 5z = 43$
$2x + y = 9$
$3y - 2z = -9$

b. $x + y + z = -1$
$3x - 2y - 4z = 16$
$2x - y + z = 19$

*OBJECTIVE: You will be able to use function notation to evaluate and find compositions.*

3. Given $f(x) = x + 1, g(x) = 2x - 3$, write each of the following compositions in simplified form.

   a. $f(g(x)) =$

   b. $g(f(x)) =$

   c. $f(x) - g(x) =$

4. Let $x = -2$. Find the value of the following compositions.

   a. $f(g(x)) =$

   b. $g(f(x)) =$

   c. $g(x) + f(x) =$

5. Given $f(x) = -3x + 5, g(x) = 4x - 1$, write each of the following compositions in simplified form.

a. $g(f(x)) =$

b. $f(g(x)) =$

c. $f^{-1}(x) - g(x) =$

6. Let $x = 3$. Find the value of the following compositions.

a. $f(g(x)) =$

b. $g(f(x)) =$

c. $g^{-1}(x) + f(x) =$