Name _____ Class _____ Date _____

6-2 Practice

Form K

Solving Sytems Using Substitution

Solve each system using substitution. Check your solution.

1. $x = y$
$x - 3y = 4$

2. $y = -2x + 5$
$3y = -x - 5$

3. $4y = 5x - 1$
$3x - 2y = 1$

4. $4x - y = -11$
$y = -\frac{1}{2}x + 2$

5. $2x + 3y = 12$
$x - 2y = -4.5$

6. $y = \frac{-x}{4} + 4$
$x + 2y = 6$

7. Writing Explain how a solution found using substitution can be checked.

8. Writing With the substitution method, explain how you find the value of the second variable once you have determined the value of one of the variables.

9. If the difference of two numbers is 43 and the sum of the numbers is 13, what are the numbers?

10. David earns $1.50 per hour more than Peter. Together, they earn $940 if they both work 40 hours in a week. How much money per hour do David and Peter earn?

Name _____ Class _____ Date _____

6-2 Practice (continued) *Form K*

Solving Sytems Using Substitution

11. The fifth-grade teachers took their classes on a field trip to a museum. The first group had 25 students and two teachers and cost $97.50. The second group had 32 students and three teachers and cost $127. What is the cost per student and per teacher?

Solve each system by substitution. Tell whether the system has *one solution, infinitely many solutions,* or *no solution*.

12. $6x - 3y = 15$
$y = 2x - 5$

13. $4x + y = -2$
$-3x - y = 0$

14. $5x + 2y = 6$
$3y = 2x + 9$

15. $2x - 6y = 12$
$3y = x + 6$

16. $4x + y = 0$
$2x - y = -12$

17. $4x + 2y = 7$
$y = -2x + 3.5$