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. Reasoning For the system of equations $\begin{matrix} x - 2y = -5 \\ 2x - 3y = -3 \end{matrix}$, which variable will you solve for first? Once you have solved for the first variable, which equation will you use to substitute into? Explain. Solve the system of equations.

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

11. 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

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

HINT: CHECK THE SLOPES of each line.

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

18. $y = 5x - 1$
$5x + y = 1$

19. $y = 3x - 6$
$-3x + y = 6$