

Name: _____ Date: _____ Period: _____

Solving Systems of Equations by Substitution

7.2 Practice 2

Use substitution to solve each system of equations. If the system does not have exactly one solution, state whether it has no solution or infinitely many solutions.

1. $y = 6x$
 $2x + 3y = -20$

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

3. $x = 2y + 7$
 $x = y + 4$

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

5. $y = 2x + 6$
 $2x - y = 2$

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

7. $x + 2y = 13$
 $-2x - 3y = -18$

8. $x - 2y = 3$
 $4x - 8y = 12$

9. $x - 5y = 36$
 $2x + y = -16$

10. $2x - 3y = -24$
 $x + 6y = 18$

11. $x + 14y = 84$
 $2x - 7y = -7$

12. $0.3x - 0.2y = 0.5$
 $x - 2y = -5$

13. $0.5x + 4y = -1$
 $x + 2.5y = 3.5$

14. $3x - 2y = 11$
 $x - \frac{1}{2}y = 4$

15. $\frac{1}{2}x + 2y = 12$
 $x - 2y = 6$

16. $\frac{1}{3}x - y = 3$
 $2x + y = 25$

17. $4x - 5y = -7$
 $y = 5x$

18. $x - 3y = -4$
 $2x + 6y = 5$

EMPLOYMENT For exercises 19-21, use the following information.

Kenisha sells athletic shoes part-time at a department store. She can earn either \$500 per month plus a 4% commission on her total sales, or a \$400 per month plus a 5% commission on total sales.

19. Write a system of equations to represent the situation.

20. What is the total price of the athletic shoes Kenisha needs to sell to earn the same income from each pay scale?

21. Which is the better offer?