6-2 Practice
Substitution

Use substitution to solve each system of equations.

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

19. EMPLOYMENT 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 $400 per month plus a 5% commission on total sales.

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

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

   c. Which is the better offer?

20. MOVIE TICKETS Tickets to a movie cost $7.25 for adults and $5.50 for students. A group of friends purchased 8 tickets for $52.75.

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

   b. How many adult tickets and student tickets were purchased?