7. GEOMETRY   The sum of the measures of angles X and Y is 180˚. The measure of angle X is 24˚ greater than the measure of angle Y.

   a. Define the variables, and write the equations for this situation.

   b. Find the measure of each angle.

Use substitution to solve each system of equations.

8. $y = 5x + 1$
    $4x + y = 10$

10. $y = 3x - 34$
     $y = 2x - 5$

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

14. $y = -3x + 4$
     $-6x - 2y = -8$

16. $x = y - 1$
     $-x + y = -1$

18. $y = -3x + 1$
     $2x + y = 1$

20. $5x - y = 5$
     $-x + 3y = 13$

22. $-5x + 4y = 20$
     $10x - 8y = -40$

27. **ERROR ANALYSIS** In the system a + b = 7 and 1.29a + 0.49b = 6.63, a represents pounds of apples and b represents pounds of bananas. Guillermo and Cara are finding and interpreting the solution. Is either of them correct? Explain.

Guillermo	Cara
$1.29a + 0.49b = 6.63$	$1.29a + 0.49b = 6.63$
$1.29a + 0.49(a + 7) = 6.63$	$1.29(7 - b) + 0.49b = 6.63$
$1.29 + 0.49a + 3.43 = 6.63$	$9.03 - 1.29b + 0.49b = 6.63$
$0.49a = 3.2$	$-0.8b = -2.4$
$a = 1.9$	$b = 3$
$a + b = 7$, so $b = 5$. The solution (2, 5) means that 2 pounds of apples and 5 pounds of bananas were bought.	The solution $b = 3$ means that 3 pounds of apples and 3 pounds of bananas were bought.

28. **CHALLENGE** A local charity has 60 volunteers. The ratio of boys to girls is 7:5. Find the number of boy and the number of girl volunteers.