NAME _____ DATE _____

Practice 41 ....

Solve each system of equations.

1. $7x + 2y = 11$
$3x - 2y = 9$

2. $5x + 3y = 18$
$5x - 2y = 13$

3. $4y + 6x = -1$
$3x + 4y = 2$

4. $-3x + 7y = 8$
$-7y + 2x = 4$

5. $y - x = 9$
$3x + y = 17$

6. $2x + 5y = 9$
$3x - 10y = 3$

7. $4x + 3y = -6$
$2x - 5y = 23$

8. $5x - 6y = -1$
$4x - 2y = 9$

9. $3y - 4x = 17$
$5x + 2y = -4$

10. $8x + 11y = 3$
$2x + 3y = 2$

11. $2x + 4y = 2$
$5x - 3y = 44$

12. $7x - 8y = 31$
$4x - 10y = 15$

Solve each system of equations, if possible. State whether there is one solution, infinitely many solutions, or no solution.

13. $3x - 8y = 17$
$15x - 40y = 17$

14. $3x - 8y = -10$
$15x + 40y = 50$

15. $4x + 6y = 10$
$6x + 9y = 15$

16. $14x - 5y = 29$
$35x + y = 32$

17. $2x - 6y = -10$
$-5x + 15y = 25$

18. $21x + 12y = 6$
$14x - 8y = 4$

19. $1.2x - 0.9y = 2$
$20x - 15y = 2$

20. $15x + \frac{5}{4}y = 25$
$12x + y = 20$

21. $4x + 5y = 36$
$5x + 4y = 36$

22. Alicia receives interest checks from two investments that her mother made for her when she graduated from college. Altogether her mother invested $8700, part at an annual rate of 5% and the rest at an annual rate of 4%. The interest payments Alicia receives annually total $400. How much money was invested at each rate?

23. After a cold day, a floor manager at a department store found that 34 pairs of gloves had been sold and $512 taken in from these sales, but the cashiers had not recorded whether the gloves were children's sizes, which sell for $12 a pair, or adult sizes, which sell for $16 a pair. How many pairs from each size category were sold?

24. Girija timed a downstream trip in her motorboat, as well as her return trip upstream at the same speed. It took her 5 min to cover 1 nautical mile downstream and 6 min 40 s to cover the same distance upstream. Find the speed of Girija's boat and the speed of the current, in knots (nautical miles per hour).