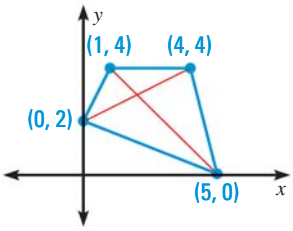
40. **TAKS REASONING** What is the solution of the linear system?

$$3x + 2y = 4$$
$$6x - 3y = -27$$

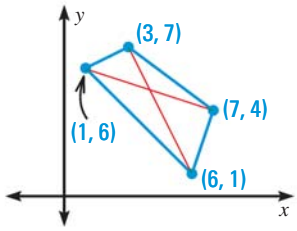
Ⓐ $(-2, -5)$ Ⓑ $(-2, 5)$ Ⓒ $(2, -5)$ Ⓓ $(2, 5)$

GEOMETRY **Find the coordinates of the point where the diagonals of the quadrilateral intersect.**

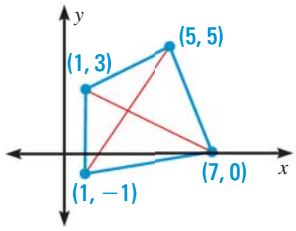
41.



42.



43.



SOLVING LINEAR SYSTEMS **Solve the system using any algebraic method.**

44. $0.02x - 0.05y = -0.38$
$0.03x + 0.04y = 1.04$

45. $0.05x - 0.03y = 0.21$
$0.07x + 0.02y = 0.16$

46. $\frac{2}{3}x + 3y = -34$
$x - \frac{1}{2}y = -1$

47. $\frac{1}{2}x + \frac{2}{3}y = \frac{5}{6}$
$\frac{5}{12}x + \frac{7}{12}y = \frac{3}{4}$

48. $\frac{x+3}{4} + \frac{y-1}{3} = 1$
$2x - y = 12$

49. $\frac{x-1}{2} + \frac{y+2}{3} = 4$
$x - 2y = 5$

50. **TAKS REASONING** Write a system of linear equations that has $(-1, 4)$ as its only solution. Verify that $(-1, 4)$ is a solution using either the substitution method or the elimination method.

SOLVING NONLINEAR SYSTEMS **Use the elimination method to solve the system.**

51. $7y + 18xy = 30$
$13y - 18xy = 90$

52. $xy - x = 14$
$5 - xy = 2x$

53. $2xy + y = 44$
$32 - xy = 3y$

54. **CHALLENGE** Find values of r, s, and t that produce the indicated solution(s).

$$-3x - 5y = 9$$
$$rx + sy = t$$

a. No solution **b.** Infinitely many solutions **c.** A solution of $(2, -3)$

PROBLEM SOLVING

EXAMPLE 3 on p. 162 for Exs. 55–59

55. **GUITAR SALES** In one week, a music store sold 9 guitars for a total of \$3611. Electric guitars sold for \$479 each and acoustic guitars sold for \$339 each. How many of each type of guitar were sold?

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56. **COUNTY FAIR** An adult pass for a county fair costs \$2 more than a children's pass. When 378 adult and 214 children's passes were sold, the total revenue was \$2384. Find the cost of an adult pass.

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