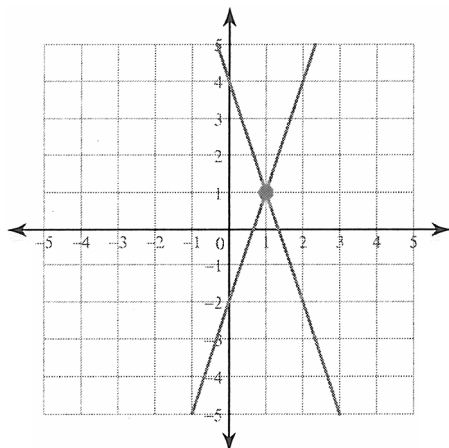


Systems of Two Equations

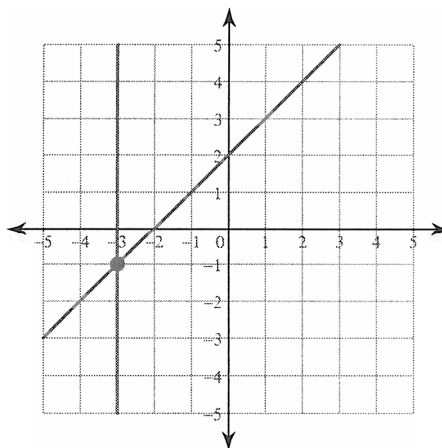
Solve each system by graphing.

$$\begin{aligned} 1) \quad & y = -3x + 4 \\ & y = 3x - 2 \end{aligned}$$



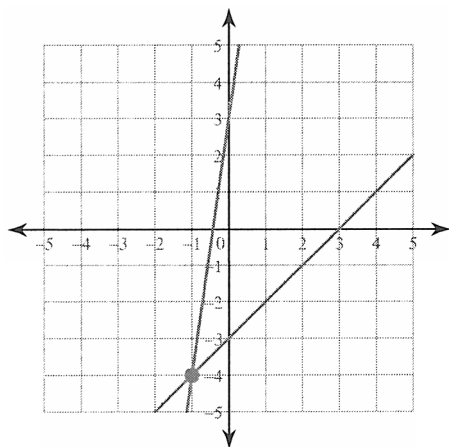
(1, 1)

$$\begin{aligned} 2) \quad & y = x + 2 \\ & x = -3 \end{aligned}$$



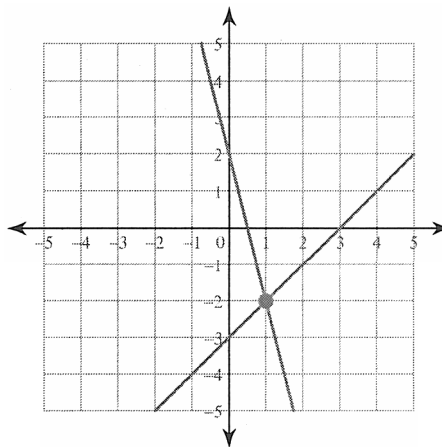
(-3, -1)

$$\begin{aligned} 3) \quad & x - y = 3 \\ & 7x - y = -3 \end{aligned}$$



(-1, -4)

$$\begin{aligned} 4) \quad & 4x + y = 2 \\ & x - y = 3 \end{aligned}$$



(1, -2)

Solve each system by substitution.

$$\begin{aligned} 5) \quad & y = 4x - 9 \\ & y = x - 3 \end{aligned}$$

(2, -1)

$$\begin{aligned} 6) \quad & 4x + 2y = 10 \\ & x - y = 13 \end{aligned}$$

(6, -7)

$$\begin{aligned} 7) \quad & y = -5 \\ & 5x + 4y = -20 \end{aligned}$$

(0, -5)

$$\begin{aligned} 8) \quad & x + 7y = 0 \\ & 2x - 8y = 22 \end{aligned}$$

(7, -1)

$$9) 6x + 8y = -22$$

$$y = -5$$

$$(3, -5)$$

$$11) 7x + 2y = -19$$

$$-x + 2y = 21$$

$$(-5, 8)$$

$$13) -7x + 4y = 24$$

$$4x - 4y = 0$$

$$(-8, -8)$$

Solve each system by elimination.

$$15) 8x - 6y = -20$$

$$-16x + 7y = 30$$

$$(-1, 2)$$

$$10) -7x + 2y = 18$$

$$6x + 6y = 0$$

$$(-2, 2)$$

$$12) 3x - 5y = 17$$

$$y = -7$$

$$(-6, -7)$$

$$14) 4x - y = 20$$

$$-2x - 2y = 10$$

$$(3, -8)$$

$$16) 6x - 12y = 24$$

$$-x - 6y = 4$$

$$(2, -1)$$

$$17) -8x - 10y = 24$$

$$6x + 5y = 2$$

$$(7, -8)$$

$$18) -24 - 8x = 12y$$

$$1 + \frac{5}{9}y = -\frac{7}{18}x$$

$$(6, -6)$$

$$19) -4y - 11x = 36$$

$$20 = -10x - 10y$$

$$(-4, 2)$$

$$20) -9 + 5y = -4x$$

$$-11x = -20 + 9y$$

$$(1, 1)$$

$$21) 0 = -2y + 10 - 6x$$

$$14 - 22y = 18x$$

$$(2, -1)$$

$$22) -16y = 22 + 6x$$

$$-11y - 4x = 15$$

$$(-1, -1)$$

$$23) -16 + 20x - 8y = 0$$

$$36 = -18y - 22x$$

$$(0, -2)$$

$$24) -\frac{5}{7} - \frac{11}{7}x = -y$$

$$2y = 7 + 5x$$

$$(-3, -4)$$

Critical thinking questions:

25) Write a system of equations with the solution $(4, -3)$.

Many answers. Ex: $x + y = 1$, $2x + y = 5$