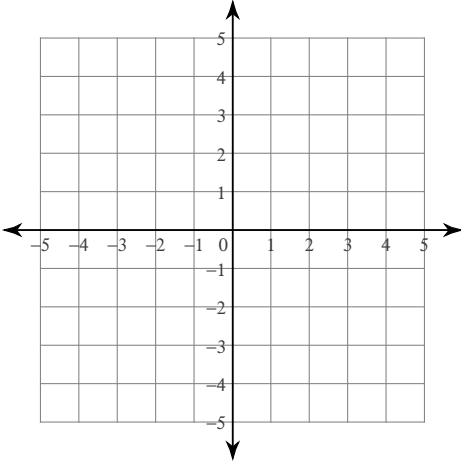


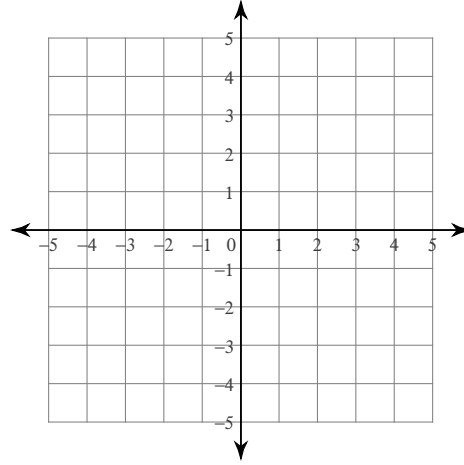
## Systems of Two Equations

**Solve each system by graphing.**

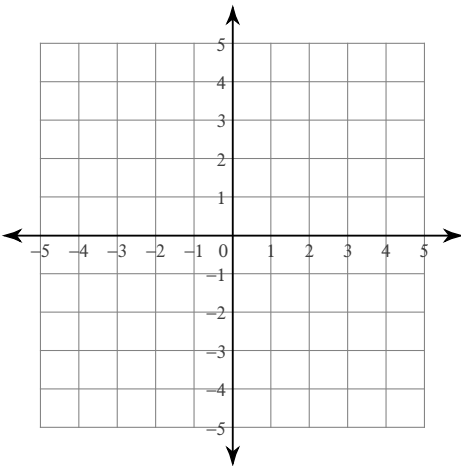
$$1) \begin{cases} y = -3x + 4 \\ y = 3x - 2 \end{cases}$$



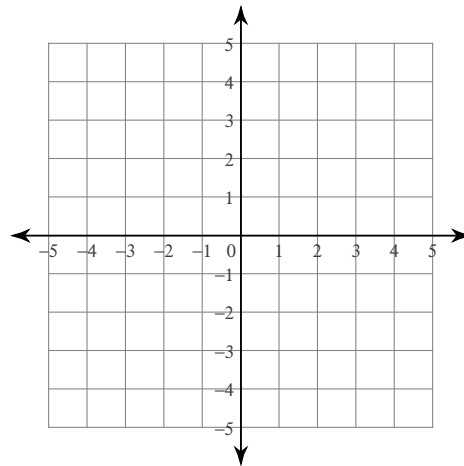
$$2) \begin{cases} y = x + 2 \\ x = -3 \end{cases}$$



$$3) \begin{cases} x - y = 3 \\ 7x - y = -3 \end{cases}$$



$$4) \begin{cases} 4x + y = 2 \\ x - y = 3 \end{cases}$$

**Solve each system by substitution.**

$$5) \begin{cases} y = 4x - 9 \\ y = x - 3 \end{cases}$$

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

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

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

$$\begin{aligned} 9) \quad 6x + 8y &= -22 \\ y &= -5 \end{aligned}$$

$$\begin{aligned} 10) \quad -7x + 2y &= 18 \\ 6x + 6y &= 0 \end{aligned}$$

$$\begin{aligned} 11) \quad 7x + 2y &= -19 \\ -x + 2y &= 21 \end{aligned}$$

$$\begin{aligned} 12) \quad 3x - 5y &= 17 \\ y &= -7 \end{aligned}$$

$$\begin{aligned} 13) \quad -7x + 4y &= 24 \\ 4x - 4y &= 0 \end{aligned}$$

$$\begin{aligned} 14) \quad 4x - y &= 20 \\ -2x - 2y &= 10 \end{aligned}$$

**Solve each system by elimination.**

$$\begin{aligned} 15) \quad 8x - 6y &= -20 \\ -16x + 7y &= 30 \end{aligned}$$

$$\begin{aligned} 16) \quad 6x - 12y &= 24 \\ -x - 6y &= 4 \end{aligned}$$

$$\begin{aligned} 17) \quad -8x - 10y &= 24 \\ 6x + 5y &= 2 \end{aligned}$$

$$\begin{aligned} 18) \quad -24 - 8x &= 12y \\ 1 + \frac{5}{9}y &= -\frac{7}{18}x \end{aligned}$$

$$\begin{aligned} 19) \quad -4y - 11x &= 36 \\ 20 &= -10x - 10y \end{aligned}$$

$$\begin{aligned} 20) \quad -9 + 5y &= -4x \\ -11x &= -20 + 9y \end{aligned}$$

$$\begin{aligned} 21) \quad 0 &= -2y + 10 - 6x \\ 14 - 22y &= 18x \end{aligned}$$

$$\begin{aligned} 22) \quad -16y &= 22 + 6x \\ -11y - 4x &= 15 \end{aligned}$$

$$\begin{aligned} 23) \quad -16 + 20x - 8y &= 0 \\ 36 &= -18y - 22x \end{aligned}$$

$$\begin{aligned} 24) \quad -\frac{5}{7} - \frac{11}{7}x &= -y \\ 2y &= 7 + 5x \end{aligned}$$

**Critical thinking questions:**

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