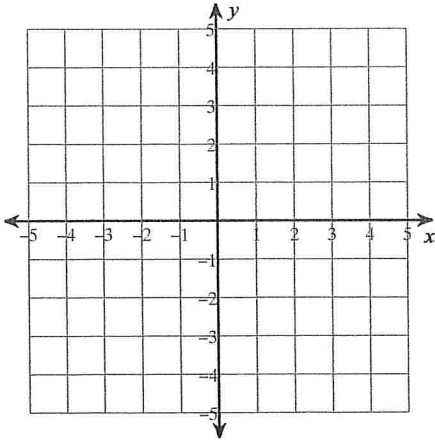


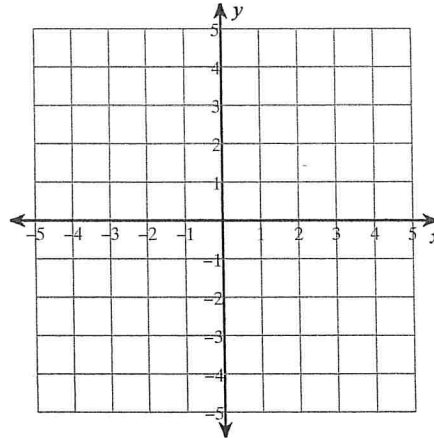
Systems Review

Solve each system by graphing.

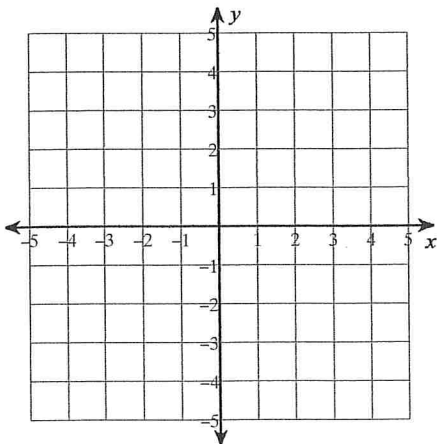
$$1) \begin{aligned} y &= 2x - 3 \\ y &= -4x + 3 \end{aligned}$$



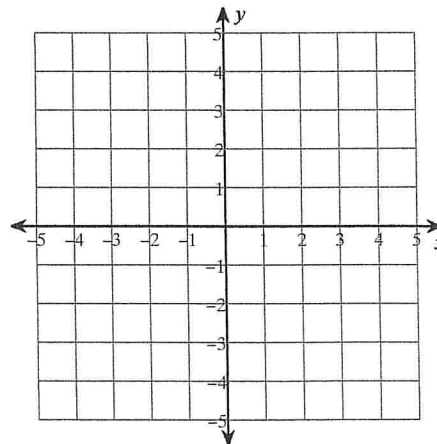
$$2) \begin{aligned} x &= 4 \\ y &= \frac{3}{4}x - 4 \end{aligned}$$



$$3) \begin{aligned} y &= -5x + 3 \\ y &= -x - 1 \end{aligned}$$

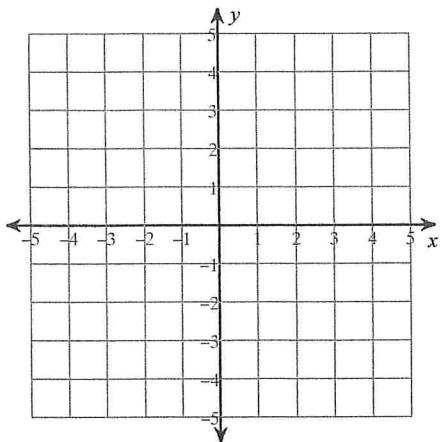


$$4) \begin{aligned} y &= 2x + 4 \\ y &= -\frac{2}{3}x - 4 \end{aligned}$$



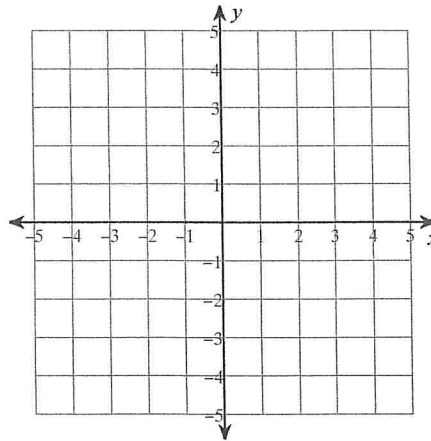
$$5) y = x + 1$$

$$y = -\frac{1}{2}x + 4$$



$$6) y = \frac{1}{2}x - 3$$

$$y = \frac{3}{2}x - 1$$



Solve each system by substitution.

$$7) \begin{aligned} -7x - 8y &= 3 \\ x + 7y &= 23 \end{aligned}$$

$$8) \begin{aligned} 5x - 3y &= -6 \\ -8x + y &= 2 \end{aligned}$$

$$9) \begin{aligned} 2x + 2y &= 24 \\ x + y &= 12 \end{aligned}$$

$$10) \begin{aligned} 7x + 2y &= 4 \\ x - 2y &= 12 \end{aligned}$$

$$11) \begin{aligned} x + 4y &= -8 \\ -3x - 12y &= -1 \end{aligned}$$

$$12) \begin{aligned} -3x + 7y &= -12 \\ x + 7y &= -24 \end{aligned}$$

$$\begin{aligned} 13) \quad & -7x + y = 18 \\ & -5x + 8y = -9 \end{aligned}$$

$$\begin{aligned} 14) \quad & -3x - y = 10 \\ & x + 2y = 5 \end{aligned}$$

$$\begin{aligned} 15) \quad & -24x - 3y = 18 \\ & 8x + y = -6 \end{aligned}$$

$$\begin{aligned} 16) \quad & -2x - y = 3 \\ & 2x + y = -3 \end{aligned}$$

- 17) Kathryn and Imani are selling cheesecakes for a school fundraiser. Customers can buy New York style cheesecakes and apple cheesecakes. Kathryn sold 5 New York style cheesecakes and 8 apple cheesecakes for a total of \$150. Imani sold 10 New York style cheesecakes and 4 apple cheesecakes for a total of \$120. Find the cost each of one New York style cheesecake and one apple cheesecake.
- 18) Bill and Amanda are selling flower bulbs for a school fundraiser. Customers can buy packages of tulip bulbs and packages of crocus bulbs. Bill sold 14 packages of tulip bulbs and 12 packages of crocus bulbs for a total of \$318. Amanda sold 13 packages of tulip bulbs and 1 package of crocus bulbs for a total of \$133. What is the cost each of one package of tulips bulbs and one package of crocus bulbs?
- 19) Paul and Norachai each improved their yards by planting daylilies and shrubs. They bought their supplies from the same store. Paul spent \$71 on 9 daylilies and 4 shrubs. Norachai spent \$25 on 1 daylily and 2 shrubs. Find the cost of one daylily and the cost of one shrub.
- 20) Willie and Ashley are selling fruit for a school fundraiser. Customers can buy small boxes of grapefruit and large boxes of grapefruit. Willie sold 10 small boxes of grapefruit and 12 large boxes of grapefruit for a total of \$224. Ashley sold 13 small boxes of grapefruit and 6 large boxes of grapefruit for a total of \$176. Find the cost each of one small box of grapefruit and one large box of grapefruit.

- 21) The sum of the digits of a certain two-digit number is 10. When you reverse its digits you increase the number by 18. What is the number?
- 22) A plane traveled 700 miles to Perth and back. The trip there was with the wind. It took 7 hours. The trip back was into the wind. The trip back took 14 hours. Find the speed of the plane in still air and the speed of the wind.
- 23) Daniel's school is selling tickets to a fall musical. On the first day of ticket sales the school sold 4 adult tickets and 1 child ticket for a total of \$27. The school took in \$18 on the second day by selling 1 adult ticket and 4 child tickets. Find the price of an adult ticket and the price of a child ticket.
- 24) Alberto's school is selling tickets to a play. On the first day of ticket sales the school sold 7 senior citizen tickets and 9 student tickets for a total of \$154. The school took in \$126 on the second day by selling 14 senior citizen tickets and 5 student tickets. What is the price each of one senior citizen ticket and one student ticket?
- 25) Kali and Bill are selling wrapping paper for a school fundraiser. Customers can buy rolls of plain wrapping paper and rolls of shiny wrapping paper. Kali sold 2 rolls of plain wrapping paper and 5 rolls of shiny wrapping paper for a total of \$75. Bill sold 4 rolls of plain wrapping paper and 3 rolls of shiny wrapping paper for a total of \$59. What is the cost each of one roll of plain wrapping paper and one roll of shiny wrapping paper?
- 26) The indoor climbing gym is a popular field trip destination. This year the senior class at High School A and the senior class at High School B both planned trips there. The senior class at High School A rented and filled 7 vans and 7 buses with 462 students. High School B rented and filled 8 vans and 14 buses with 876 students. Each van and each bus carried the same number of students. Find the number of students in each van and in each bus.