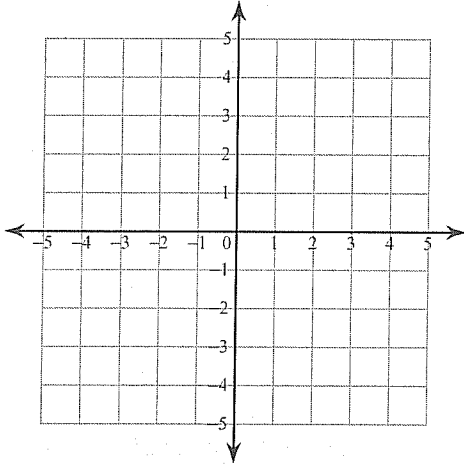


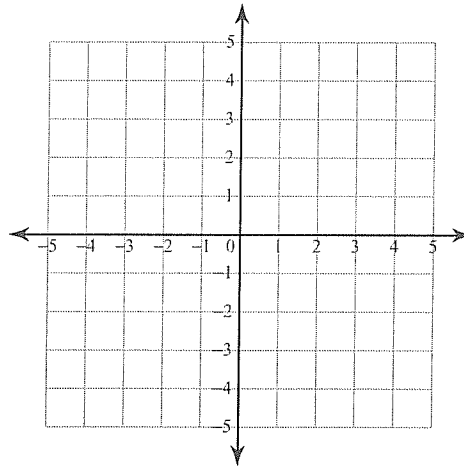
CHAPTER REVIEW 1

Solve each system by graphing.

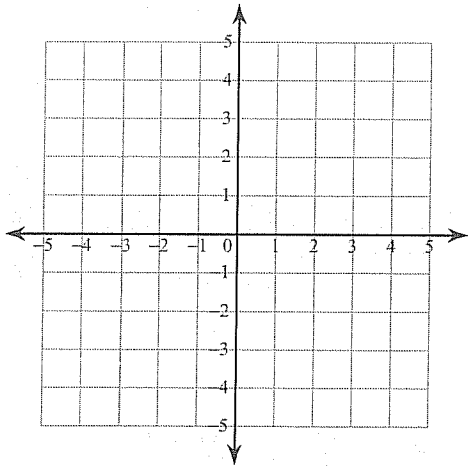
$$1) \begin{aligned} y &= 2x + 3 \\ y &= -4x - 3 \end{aligned}$$



$$2) \begin{aligned} y &= \frac{5}{3}x - 2 \\ y &= \frac{1}{3}x + 2 \end{aligned}$$



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



Solve each system by substitution.

$$4) \begin{aligned} -3x + 3y &= 21 \\ y &= 7 \end{aligned}$$

$$5) \begin{aligned} y &= -7x + 1 \\ -5x - 4y &= 19 \end{aligned}$$

$$6) \begin{aligned} -x + 4y &= 19 \\ y &= 4 \end{aligned}$$

$$7) \begin{aligned} 2x + 3y &= 1 \\ y &= 8x - 17 \end{aligned}$$

Solve each system by elimination.

$$\begin{aligned} 8) \quad & 9x - 5y = -18 \\ & -9x + 5y = 22 \end{aligned}$$

$$\begin{aligned} 9) \quad & 5x + 5y = 15 \\ & -5x - 5y = -15 \end{aligned}$$

$$\begin{aligned} 10) \quad & -x + 3y = 4 \\ & x - 3y = -5 \end{aligned}$$

$$\begin{aligned} 11) \quad & -10x - 8y = 8 \\ & -9x + 8y = -8 \end{aligned}$$

Solving Word Problems using Linear Systems

Period _____ Group _____

- 1) Brenda and Anjali each improved their yards by planting rose bushes and ornamental grass. They bought their supplies from the same store. Brenda spent \$72 on 4 rose bushes and 8 bunches of ornamental grass. Anjali spent \$52 on 4 rose bushes and 3 bunches of ornamental grass. What is the cost of one rose bush and the cost of one bunch of ornamental grass?
- 2) Asanji and Pranav each improved their yards by planting daylilies and ivy. They bought their supplies from the same store. Asanji spent \$91 on 7 daylilies and 7 pots of ivy. Pranav spent \$75 on 7 daylilies and 5 pots of ivy. Find the cost of one daylily and the cost of one pot of ivy.
- 3) Jill and Stefan are selling fruit for a school fundraiser. Customers can buy small boxes of tangerines and large boxes of tangerines. Jill sold 14 small boxes of tangerines and 14 large boxes of tangerines for a total of \$364. Stefan sold 7 small boxes of tangerines and 3 large boxes of tangerines for a total of \$114. What is the cost each of one small box of tangerines and one large box of tangerines?
- 4) Mark and Kathryn are selling flower bulbs for a school fundraiser. Customers can buy bags of windflower bulbs and packages of crocus bulbs. Mark sold 2 bags of windflower bulbs and 10 packages of crocus bulbs for a total of \$110. Kathryn sold 8 bags of windflower bulbs and 12 packages of crocus bulbs for a total of \$160. Find the cost each of one bag of windflower bulbs and one package of crocus bulbs.
- 5) Joe's school is selling tickets to the annual talent show. On the first day of ticket sales the school sold 4 adult tickets and 11 student tickets for a total of \$89. The school took in \$66 on the second day by selling 8 adult tickets and 6 student tickets. What is the price each of one adult ticket and one student ticket?
- 6) The school that Mei goes to is selling tickets to a fall musical. On the first day of ticket sales the school sold 7 senior citizen tickets and 7 student tickets for a total of \$140. The school took in \$271 on the second day by selling 14 senior citizen tickets and 13 student tickets. What is the price each of one senior citizen ticket and one student ticket?
- 7) A boat traveled 200 miles downstream and back. The trip downstream took 10 hours. The trip back took 20 hours. Find the speed of the boat in still water and the speed of the current.
- 8) A plane traveled 644 miles to London 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.
- 9) The senior classes at High School A and High School B planned separate trips to New York City. The senior class at High School A rented and filled 10 vans and 2 buses with 266 students. High School B rented and filled 14 vans and 6 buses with 558 students. Each van and each bus carried the same number of students. Find the number of students in each van and in each bus.
- 10) The senior classes at High School A and High School B planned separate trips to the local amusement park. The senior class at High School A rented and filled 2 vans and 14 buses with 382 students. High School B rented and filled 10 vans and 6 buses with 246 students. Every van had the same number of students in it as did the buses. Find the number of students in each van and in each bus.