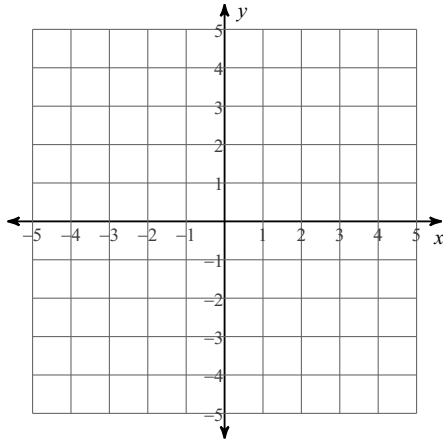


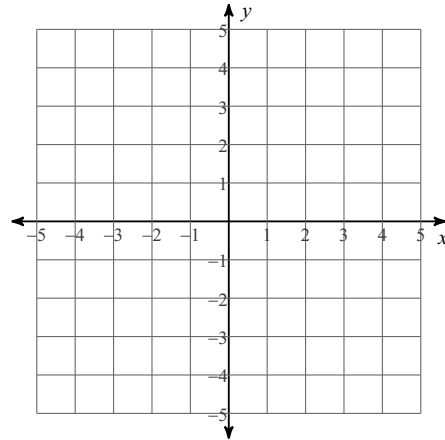
Systems of Equations - Mixed Review

Solve each system by graphing.

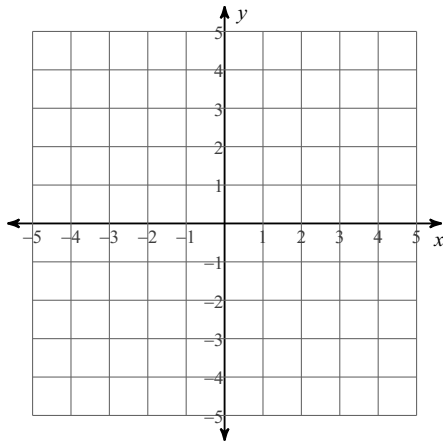
1) $y = -2x - 1$
 $y = 3x + 4$



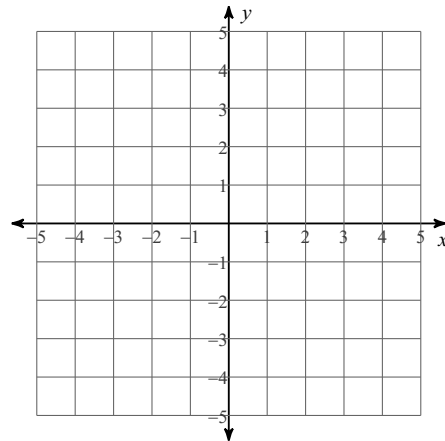
2) $y = 4x - 3$
 $y = 4x - 2$



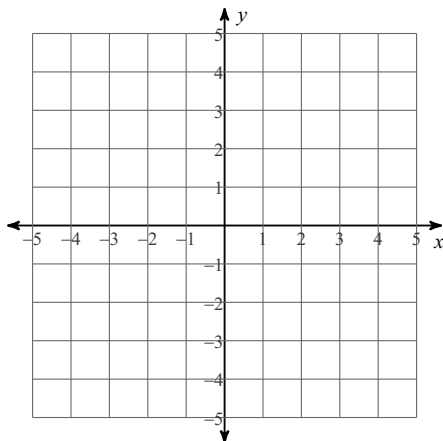
3) $x + y = -2$
 $5x - y = -4$



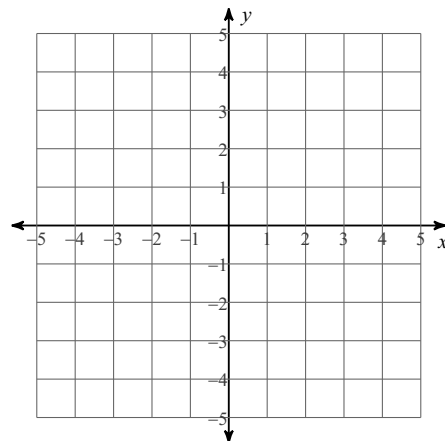
4) $x - y = 4$
 $4x + y = 1$



5) $y \leq -x - 2$
 $y \leq -6x + 3$



6) $x + 3y \geq -6$
 $4x - 3y > -9$



Solve each system by substitution.

$$\begin{aligned} 7) \quad & y = 7x + 15 \\ & y = -2x + 6 \end{aligned}$$

$$\begin{aligned} 8) \quad & y = 4x + 7 \\ & y = -4x - 1 \end{aligned}$$

$$\begin{aligned} 9) \quad & -2x + 4y = -10 \\ & y = -6x - 9 \end{aligned}$$

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

$$\begin{aligned} 11) \quad & x - 4y = -16 \\ & 3x + 8y = -8 \end{aligned}$$

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

Solve each system by elimination.

$$\begin{aligned} 13) \quad & 9x + 9y = 11 \\ & -9x - 9y = -9 \end{aligned}$$

$$\begin{aligned} 14) \quad & -9x - 9y = 0 \\ & 6x + 9y = -6 \end{aligned}$$

$$\begin{aligned} 15) \quad & -3x + y = 0 \\ & -8x + y = 10 \end{aligned}$$

$$\begin{aligned} 16) \quad & 4x + 2y = -22 \\ & 4x + 10y = -30 \end{aligned}$$

$$\begin{aligned} 17) \quad & -4x - 10y = -30 \\ & x + y = 6 \end{aligned}$$

$$\begin{aligned} 18) \quad & 2x + 2y = -6 \\ & -6x + 3y = 9 \end{aligned}$$

- 19) Shayna and Brenda are selling wrapping paper for a school fundraiser. Customers can buy rolls of plain wrapping paper and rolls of holiday wrapping paper. Shayna sold 3 rolls of plain wrapping paper and 2 rolls of holiday wrapping paper for a total of \$97. Brenda sold 3 rolls of plain wrapping paper and 8 rolls of holiday wrapping paper for a total of \$217. What is the cost each of one roll of plain wrapping paper and one roll of holiday wrapping paper?
- 20) Norachai's school is selling tickets to a choral performance. On the first day of ticket sales the school sold 11 senior citizen tickets and 9 child tickets for a total of \$242. The school took in \$264 on the second day by selling 11 senior citizen tickets and 11 child tickets. What is the price each of one senior citizen ticket and one child ticket?
- 21) Scott's school is selling tickets to the annual talent show. On the first day of ticket sales the school sold 12 senior citizen tickets and 14 child tickets for a total of \$270. The school took in \$195 on the second day by selling 11 senior citizen tickets and 7 child tickets. Find the price of a senior citizen ticket and the price of a child ticket.
- 22) The senior classes at High School A and High School B planned separate trips to the state fair. The senior class at High School A rented and filled 10 vans and 10 buses with 630 students. High School B rented and filled 5 vans and 6 buses with 367 students. Each van and each bus carried the same number of students. How many students can a van carry? How many students can a bus carry?

Answers to Systems of Equations - Mixed Review

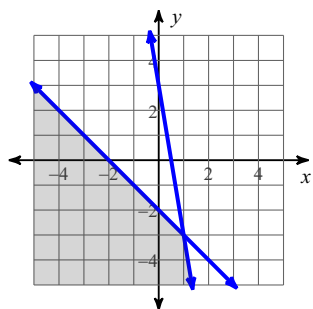
1) $(-1, 1)$

2) No solution

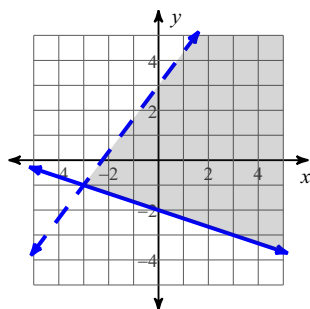
3) $(-1, -1)$

4) $(1, -3)$

5)



6)



7) $(-1, 8)$

8) $(-1, 3)$

9) $(-1, -3)$

10) Infinite number of solutions

11) $(-8, 2)$

12) $(-3, -4)$

13) No solution

14) $(2, -2)$

15) $(-2, -6)$

16) $(-5, -1)$

17) $(5, 1)$

18) $(-2, -1)$

19) roll of plain wrapping paper: \$19, roll of holiday wrapping paper: \$20

20) senior citizen ticket: \$13, child ticket: \$11

21) senior citizen ticket: \$12, child ticket: \$9

22) Van: 11, Bus: 52