

Chapter 5
Form A

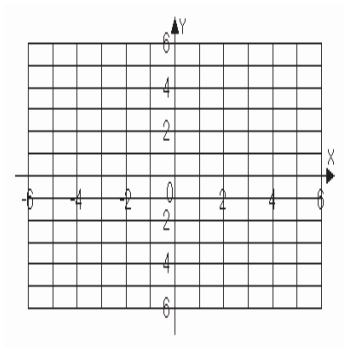
1. Is the ordered pair (2, 1) a solution to the system?
 $2x + y = 5$
 $x - y = 1$

1. _____

For problems 2 – 5, solve each system by graphing. If there is no solution or an infinite number of solutions, so state.

2. $x - y = 4$
 $x + y = 2$

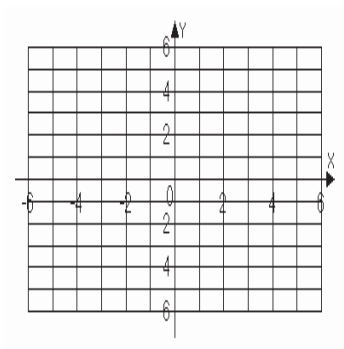
2.



Solution: _____

3. $2x - y = 4$
 $y = -x - 1$

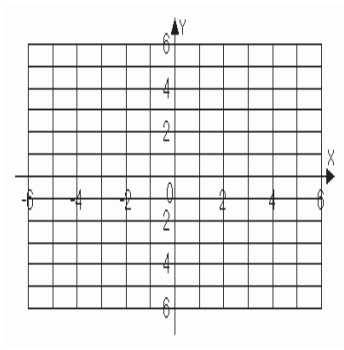
3.



Solution: _____

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

4.



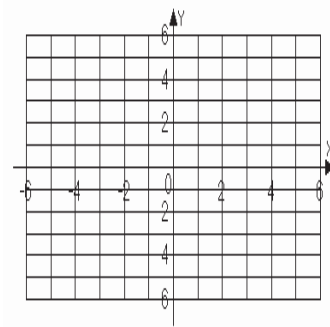
Solution: _____

Name _____

Date _____

5. $x = -2$
 $y = 1$

5.



Solution: _____

For problems 6 – 9, solve each system by the substitution method. If there is no solution or an infinite number of solutions, so state.

6. $7x - 4y = 26$
 $y = x - 5$

6. _____

7. $8x + 3y = -14$
 $-x + 2y = -3$

7. _____

8. $y = 2x - 6$
 $y = x - 5$

8. _____

9. $-3x + 2y = 8$
 $y = \frac{3}{2}x + 3$

9. _____

For problems 10 – 13, solve each system by the addition method. If there is no solution or an infinite number of solutions, so state.

10. $4x + y = 7$
 $3x - y = 0$

10. _____

Name _____

Date _____

11.
$$\begin{aligned}6x + 2y &= 8 \\2x - y &= 6\end{aligned}$$

11. _____

12.
$$\begin{aligned}4x - 10y &= -24 \\-2x + 5y &= 12\end{aligned}$$

12. _____

13.
$$\begin{aligned}3x + 5y &= 4 \\-4x + 2y &= -1\end{aligned}$$

13. _____

For problems 14 – 15, solve each system by the method of your choice. If there is no solution or an infinite number of solutions, so state.

14.
$$\begin{aligned}5x + 3y &= 7 \\2x - 3y &= 14\end{aligned}$$

14. _____

15.
$$\begin{aligned}x - 4 &= 0 \\8x - 5y &= 2\end{aligned}$$

15. _____

16. A corporation allows each of its traveling employees an amount of money per day for a hotel room and food expenses. One employee travels for 4 days and 4 nights and is allotted 480 dollars while another employee travels for 3 days and 2 nights and is allotted 270 dollars. Find the amount allowed for a hotel room and daily food expenses.

16. _____

17. A charity sells tickets for a fundraising dinner. Each adult's ticket costs 10 dollars and each child's ticket costs 5 dollars. A total of \$1050 was raised by selling 130 tickets. How many adult and child tickets were sold?

17. _____

Name _____

Date _____

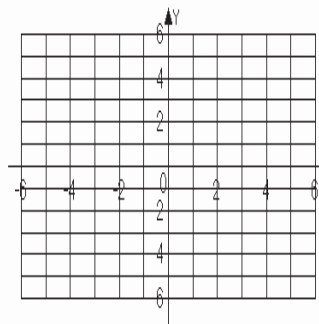
18. The weekly demand model for a new toy is given by $N = -5p + 80$. The weekly supply model for the same toy is $N = 3p + 40$. For these models, p is the price of the toy and N is the number of toys sold or supplied each week to the toy store. Find the price at which supply and demand are equal.

18. _____

For problems 19 – 20, graph the solutions of each system of linear inequalities.

19. $3x - 2y \leq 6$
 $x + 2y \geq 2$

19.



20. $5x + 10y > 20$
 $x > 3$

20.

