Name _____ Date _____

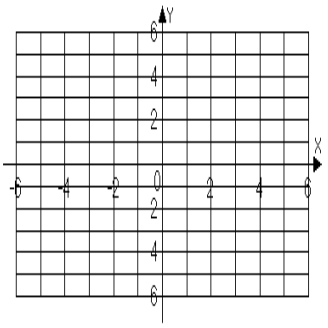
**Chapter 4**
**Form B**

1. Is the ordered pair (–1, –2) a solution to the system? 1. _____

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

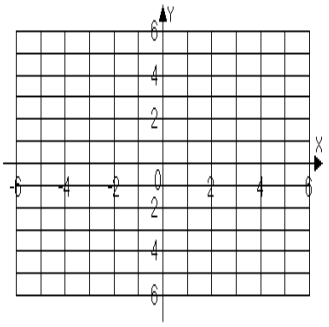
For problems 2 – 5, solve each system by graphing. If there is no solution or an infinite number of solutions, so state.

2. $2x - y = 8$
$y = x + 4$

2. 

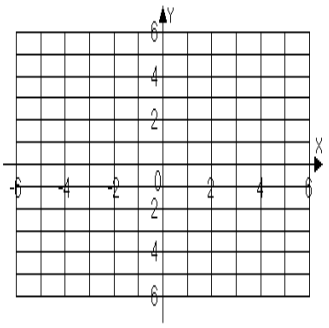
Solution: _____

3. $-3x + 3y = 9$
$y = x + 4$

3. 

Solution: _____

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

4. 

Solution: _____

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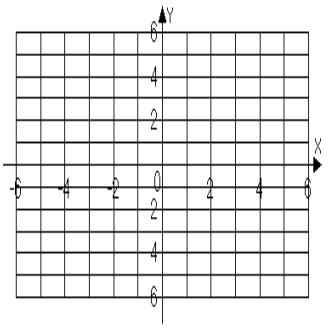
5. $x = -1$
$y = -3$

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. $2x - y = 14$
$y = 5x - 29$

6. _____

7. $-7x + 2y = -17$
$x - 3y = -3$

7. _____

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

8. _____

9. $4x - 5y = 20$
$y = \frac{4}{5}x - 4$

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. $x + 3y = 5$
$-x + 2y = -5$

10. _____

11. $4x + 3y = 14$
$3x - y = 4$

11. _____

12. $-14x + 4y = 8$
$7x - 2y = 8$

12. _____

13. $9x - 6y = 36$
$2x + 4y = 0$

13. _____

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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. $3x - 4y = 6$
$2x + y = -7$

14. _____

15. $y + 2 = 0$
$5x - 2y = 9$

15. _____

16. A company budgets 30,000 dollars for advertisement costs promoting a new product. Television ads cost 500 dollars each and radio ads cost 100 dollars each. If the company wants to buy a total of 220 ads, how many television ads and radio ads should the company buy?

16. _____

17. The sum of a first and second number is 130. If the second number is 20 less than four times the first number, find the two numbers.

17. _____

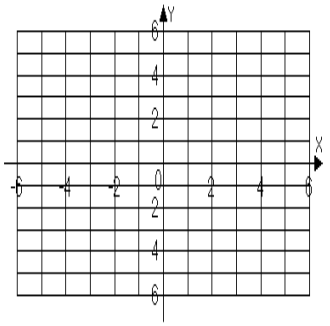
18. The weekly demand model for a new video game is given by $N = -p + 520$. The weekly supply model for the same video game is $N = 3p + 400$. For these models, $p$ is the price of the video game and $N$ is the number of video games sold or supplied each week. Find the price at which supply and demand are equal.

18. _____

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

19. $-2x + y \geq -3$
$3x + y \leq 0$

19.




20. $5x + 2y > 0$
$y > 0$

20.