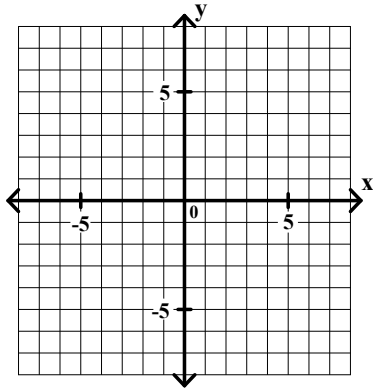


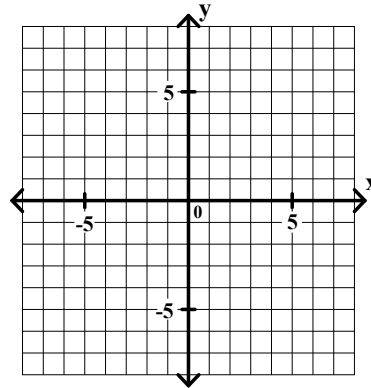
General Algebra 2 Review Unit 3 page 1

Solve each of the following systems using the graphing method.

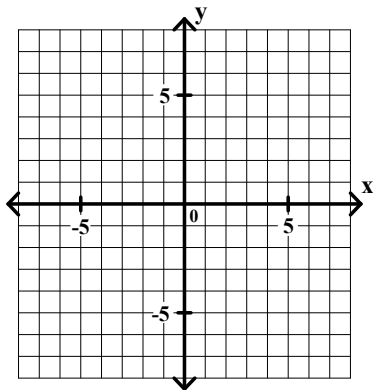
1. $y = \frac{1}{3}x + 4$ $x = \underline{\hspace{2cm}}$
 $y = 2x - 1$ $y = \underline{\hspace{2cm}}$



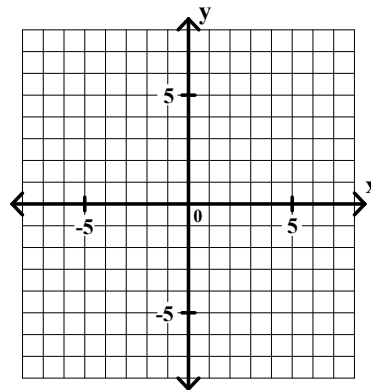
2. $y = x - 7$ $x = \underline{\hspace{2cm}}$
 $y = \frac{2}{3}x + 3$ $y = \underline{\hspace{2cm}}$



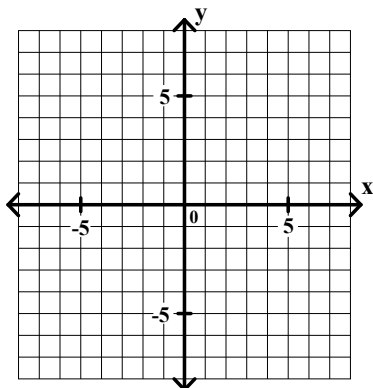
3. $y = 2x + 4$ $x = \underline{\hspace{2cm}}$
 $y = \frac{4}{3}x + 2$ $y = \underline{\hspace{2cm}}$



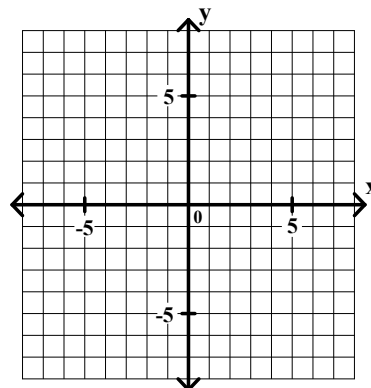
4. $y = \frac{1}{2}x + 5$ $x = \underline{\hspace{2cm}}$
 $y = \frac{3}{2}x - 3$ $y = \underline{\hspace{2cm}}$



5. $y = 2x + 4$ $x = \underline{\hspace{2cm}}$
 $x - 2y = 4$ $y = \underline{\hspace{2cm}}$



6. $x + 3y = -9$ $x = \underline{\hspace{2cm}}$
 $2x - 3y = 0$ $y = \underline{\hspace{2cm}}$



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Solve each of the following systems of equations using the substitution method. Show your work neatly organized.

7. $2x + 5y = 39$ $x = \underline{\hspace{2cm}}$
 $y = 3x + 1$ $y = \underline{\hspace{2cm}}$

8. $8x - 3y = 17$ $x = \underline{\hspace{2cm}}$
 $y = 2x - 3$ $y = \underline{\hspace{2cm}}$

9. $2x + 3y = 19$ $x = \underline{\hspace{2cm}}$
 $y = 4x - 3$ $y = \underline{\hspace{2cm}}$

10. $5x - 2y = -11$ $x = \underline{\hspace{2cm}}$
 $y = x + 4$ $y = \underline{\hspace{2cm}}$

11. $3x + 2y = 5$ $x = \underline{\hspace{2cm}}$
 $y = x - 1$ $y = \underline{\hspace{2cm}}$

12. $4x - 5y = 1$ $x = \underline{\hspace{2cm}}$
 $x = 3y - 2$ $y = \underline{\hspace{2cm}}$

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Solve each of the following systems of equations using the **multiplication-addition method**. Show your work neatly organized.

13. $x + 4y = 13$ $x = \underline{\hspace{2cm}}$
 $3x - 2y = 11$ $y = \underline{\hspace{2cm}}$

14. $5x - 3y = 31$ $x = \underline{\hspace{2cm}}$
 $2x + y = 19$ $y = \underline{\hspace{2cm}}$

15. $4x + 3y = 7$ $x = \underline{\hspace{2cm}}$
 $2x - y = -9$ $y = \underline{\hspace{2cm}}$

16. $3x - 5y = 14$ $x = \underline{\hspace{2cm}}$
 $2x + 3y = 3$ $y = \underline{\hspace{2cm}}$

17. $3x + y = 6$ $x = \underline{\hspace{2cm}}$
 $x + 3y = -2$ $y = \underline{\hspace{2cm}}$

18. $5x - 3y = 2$ $x = \underline{\hspace{2cm}}$
 $2x - 2y = 1$ $y = \underline{\hspace{2cm}}$

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Use a system of two equations with two variables to solve each of the following problems. Show your complete solution neatly organized in the space provided.

19. The sum of two numbers is 50. The first number is 2 less than 3 times the second. What are the numbers?

20. A collection of 60 ordinary dimes and quarters is worth \$9. How many coins of each type are in the collection?

21. A collection of ordinary nickels and dimes is worth \$6. The number of nickels is 8 less than 6 times the number of dimes. How many coins of each type are in the collection?

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Use a system of two equations with two variables to solve each of the following problems. Show your complete solution neatly organized in the space provided.

22. The drama club sold a total of 150 tickets to a school play. Adult tickets sold for \$5 each, and student tickets sold for \$3 each. If the total receipts were \$616, then how many tickets of each type were sold?

23. Tom and Mike received a total of \$350. The amount that Mike received was \$25 less than twice the amount that Tom received. How much did each person receive?

24. Coffee worth \$1.30 per pound is mixed with coffee worth 90 cents per pound to produce a fifty pound blend worth \$1.14 per pound. How many pounds of each type of coffee is used?

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Use a system of two equations with two variables to solve each of the following problems. Show your complete solution neatly organized in the space provided.

25. Mary invested \$2000, part at 5% per year and the rest at 8% per year. If the total interest for the year was \$136, then how much was invested at each rate?

26. A chemist has one solution that is 45% acid and another that is 90% acid. How much of each solution should she use to make 90cc of a solution that is 72% acid?