

6-1

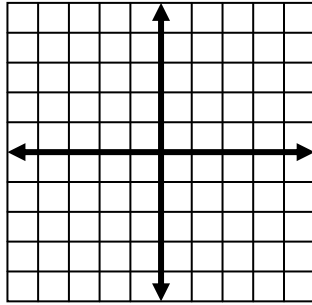
Practice B

Form K

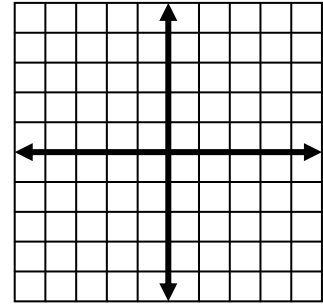
Solving Systems by Graphing

Solve each system by graphing. Check your solution.

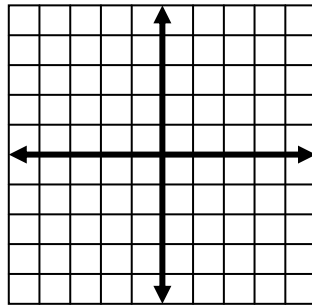
$$\begin{aligned} 1. \quad & y = x - 4 \\ & y = 3x - 4 \end{aligned}$$



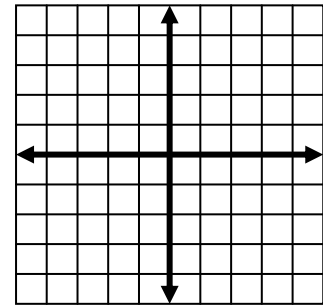
$$\begin{aligned} 2. \quad & y = -2x + 11 \\ & y = x - 2 \end{aligned}$$



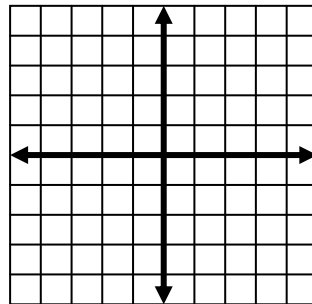
$$\begin{aligned} 3. \quad & y = -3x + 3 \\ & y = 2x - 7 \end{aligned}$$



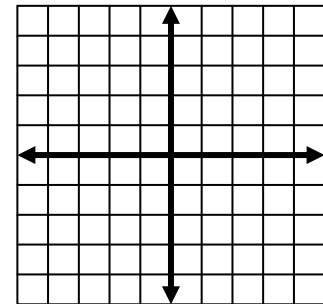
$$\begin{aligned} 4. \quad & y = x + 3 \\ & y = -4x - 2 \end{aligned}$$



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



$$\begin{aligned} 6. \quad & y = 4x - 11 \\ & y = -2x + 7 \end{aligned}$$



7. **Reasoning** If the graphs of two linear equations in a system do not intersect each other, what does that tell you about the solution of the system? Explain.

8. **Writing** Describe how to determine the solution of a system of two linear equations by graphing.

9. **Reasoning** Can you determine whether a system of two linear equations has one solution, an infinite number of solutions, or no solution by simply examining the equations without graphing the lines? Explain.

10. **Reasoning** Without graphing, decide whether the following system of linear equations has *one solution*, *infinitely many solutions*, or *no solution*. Explain.

$$8x = 2y - 16$$

$$y = 4x$$

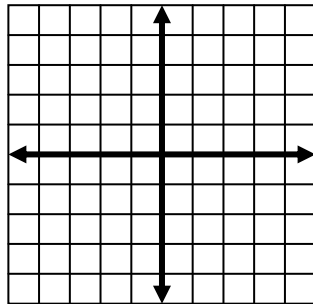
11. Right now Seth's age is $\frac{4}{5}$ the age of his brother Eric. Twenty-one years ago, Eric was twice as old as Seth. What are their ages now?

12. The sum of two numbers is 62, and their difference is 8. What are the numbers?

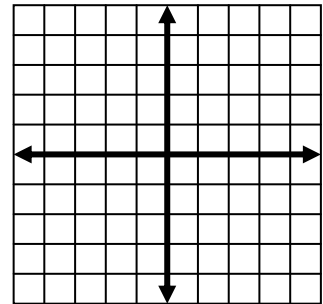
13. One of the measures of the angles of a triangle is 25° . If the sum of the measures of the other two angles is 155° and the difference between their measures is 5° , what are the measures of the unknown angles?

Solve each system by graphing. Tell whether the system has *one solution*, *infinitely many solutions*, or *no solution*.

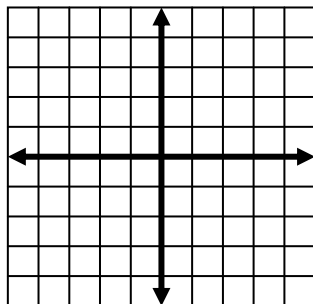
14. $y = -5x + 1$
 $y = -3x - 1$



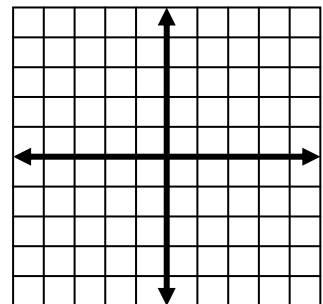
15. $y = 2x + 4$
 $y = (1/3)x - 1$



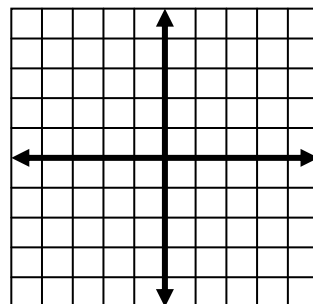
16. $5x + y = -5$
 $10x + 2y - 10 = 0$



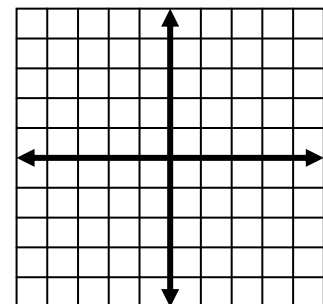
17. $y = 2x - 4$
 $y = (3/5)x + 3$



18. $3x - y = -2$
 $y = (-1/2)x + 9$



19. $y + 2x = 7$
 $2y - 1 = -4x + 13$



20. **Writing** If two equations represent the same line, what can you conclude about the solution of the equations? Why? Explain.