DIGITAL



Solve each system of equations by graphing.



Solve each system of equations by elimination.

5. (4x + 2y = 10) $\int 2x + y = 5$

Dependent; infinite number of solutions

6.
$$\begin{cases} 2x - y = 8 \\ x + 3y = -38 \end{cases}$$

(-2, -12)

4. $\begin{cases} y = 1 \\ 3x - y = -10 \end{cases}$

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

Inconsistent; no solution

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8. $\begin{cases} -x + y = 2\\ 3x + y = -14 \end{cases}$ (-4, -2)

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Solve each system of linear inequalities.





11. Cynthia invests \$1,150. She receives \$61 in interest payments in one year. She makes 5% interest on part of the money and 6% interest on the rest of the money. Write a system of equations to describe this situation. Solve the system of equations to find the amount of money invested at each rate of interest. x + y = 1,150

0.05x + 0.06y = 61



12. Ferd wants to fence a rectangular vegetable garden he plans to build. The width of the garden should be at least 2 yards and the perimeter of the garden should be no more 14 yards. What are the possible dimensions of the garden?





$\begin{cases} x \le 6\\ y \ge 4 \end{cases}$			
(0, 0)	B. (-3, 4)	C. (1, 1)	D. (3, 4)

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Test A

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- **14.** Suppose two linear equations are graphed on the same coordinate plane. If both equations form the same line, which statement is false?
 - **A.** There are an infinite number of solutions.
 - **B.** The system is consistent.
 - **C.** The system is dependent.
 - **(D.)** The system is inconsistent.
- **15.** Answer the following questions in the space provided. Show all work. Be sure to label your responses (A), (B), and (C). Consider the following system of equations. (2x + 2y = 268)

x = 30 + y

- **A.** Solve this system of equations by elimination.
- B. Solve this system of equations by substitution.
- **c.** Which method is better? Why?

A. 2x + 2y = 2682x + 2y = 2682x - 2y = 60x - y = 30**4**x = 328 x = 82 82 = 30 + y52 = y (82, 52) B. 2(30 + y) + 2y = 26860 + 2y + 2y = 268**60 + 4***y* = 268 4y = 208y = 52x = 30 + 52x = 82 (82, 52)

C. Answers may vary. Accept any answer that is well supported.

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