



NAME \_\_\_\_\_

DATE \_\_\_\_\_

**Module 10** Solving Systems of Linear Equations and Inequalities  
**Lesson 2** Solving Systems of Linear Equations by Elimination

**Solve each system of equations using the elimination method.**

1.  $\begin{cases} x + y = 15 \\ 3x - y = 1 \end{cases}$

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2.  $\begin{cases} x + y = 0 \\ x - y = 18 \end{cases}$

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3.  $\begin{cases} x - 2y = 7 \\ 2x + 2y = 11 \end{cases}$

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4.  $\begin{cases} 5x - 4y = 13 \\ 3x + 4y = 19 \end{cases}$

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5.  $\begin{cases} 8x + 2y = -17 \\ 16x + 4y = 1 \end{cases}$

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6.  $\begin{cases} 11x - y = 14 \\ 2x + y = -1 \end{cases}$

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7.  $\begin{cases} 3a + 5b = 11 \\ 4a - 3b = 5 \end{cases}$

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8.  $\begin{cases} 5x = 7y - 8 \\ 10x = 14y + 16 \end{cases}$

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9.  $\begin{cases} 12x - 8y = -3 \\ 10x - 4y = 2 \end{cases}$

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**Write a system of equations and solve by using the elimination method.**

10. The sum of two numbers is 53. The first number is five more than twice the second. Find the two numbers.

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11. The sum of two consecutive odd integers is 32. The first minus the second is negative two. Find the integers.

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12. The senior class sold 173 tickets to the Christmas play. Adult tickets cost \$6.25, and children's tickets cost \$3.75. If the senior class earned \$858.75, how many of each kind of ticket was sold?

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13. Tom worked a total of 23 hours last week, part at the local convenience store and the rest at the grocery store. He gets paid \$5.25 per hour at the grocery store and \$6.45 per hour at the convenience store. If his total pay for the week was \$129.15, how many hours did he work at each place?

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14. Jon is three years older than his brother Jim. Five years from now, Jon will be eleven more than half his brothers' age. How old is each now?

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15. The perimeter of a rectangle is 30m. The length is twice the width. Find the dimensions.

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