

## Chapter 4 Section 3: Word Problems with Two Unknowns

### Problems

*Write an equation for each problem and solve for the two unknowns.*

- 1.** One number is twice another number. Their sum is 33.
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- 2.** One number is 3 less than another number. Their sum is 23.
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- 3.** One number is 6 more than another number. Their sum is 36.
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- 4.** A number is three times another number. Their sum is 48.
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- 5.** A number is 8 more than another number. Their sum is 48.
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- 6.** One number is 15 less than another number. Their sum is  $-45$ .
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- 7.** One number is twice another number. Their sum is 96.
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- 8.** One number is 4 less than twice another number. Their sum is 17.
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- 9.** A number is 9 less than three times another number. Their sum is 55.
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- 10.** One number is 5 more than 3 times another number. Their sum is 61.
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- 11.** One number is twice the sum of another number and 12. The sum of the two numbers is 3.
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- 12.** A number is four times the difference of another number and 22. The sum of the two numbers is 7.
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- 13.** One number is twice the difference of 22 and another number. Their sum is 54.
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- 14.** A number is three times the difference of 15 and another number. Their sum is 1.
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*Solve each word problem.*

- 15.** A 51-inch log was cut into two unequal pieces. One piece is 13 inches longer than the other. Find the length of each piece.
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- 16.** The price of a pair of shoes and a matching purse is \$295. Find price of each if the shoes cost \$45 more than the purse.
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17. Alfonso's age is 4 years less than twice his brother's age. The sum of their ages is 41, how old are they?
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19. The price of an mp3 player is \$120 more than three memory sticks. Sherry paid \$864 for one mp3 player and three memory sticks. What was the cost of each?
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21. Hanna's monthly expenses are \$2,975. Her mortgage is \$275 less than the rest of her monthly expenses. How much is her mortgage and the rest of her monthly expenses?
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23. The price of a concert ticket is \$32 more than the price of a movie ticket. Joe bought one concert ticket and two movie tickets for \$56. What was the price of each type of ticket?
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25. The number of fiction books Lacey owns is seven less than four times the number of non-fiction books. She has a total of 83 books. How many of each type of book does she have?
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27. The sum of the length and width of a rectangle is 59 inches. If the length is 5 inches more than five times the width, what are the length and the width of the rectangle?
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29. The length of a swimming pool is 4 feet more than twice its width. If the sum of the length and width is 34 feet, find the length and width of the pool.
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18. A set of pots and pans costs \$60 less than a set of dishes. Together they cost \$270. How much does each cost?
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20. Combined, Mike and Jerry bicycled 37 miles. If Jerry traveled 15 miles more than Mike, how many miles did each travel?
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22. It is a total of 24 miles from Mary's home to the store, then to her office. The distance from the store to her office is three times the distance from home to the store. How far is it from home to the store and from the store to her office?
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24. Mina paid \$2,600 for a deposit and first month rent for her new apartment. If the deposit is \$700 less than twice the rent, find the amount of the deposit and the rent.
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26. In Sari's coin collection, the number of nickels she has is 13 more than three times the number of quarters. If she has a total of 125 coins, how many does she have of each?
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28. On Saturdays, Milo works one hour less than twice the hours he works on Tuesdays. If he works a total of 20 hours on Tuesdays and Saturdays, how many hours does he work each day?
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30. The cost of four books is \$2 more than twice the cost of a CD. The total cost of four books and one CD is \$47. What is the cost of one CD and one book?
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