

Write and Solve Equations From Word Problems

Write an equation for each word problem. Then solve for the variable.

EQUATIONS MAY VARY

- 1 Gianna's family reserved a campsite for 5 nights for a family vacation. They paid \$115 total for the reservation. Let c be the cost of the reservation per night. Write and solve an equation to find c .

$$5c = \$115$$

$$c = \$23$$

- 2 Last Saturday, Camila practiced her dance routines for her upcoming competition. She spent some time practicing her tap routine, and then she spent 17 minutes practicing her hip-hop routine. In all, she practiced for 45 minutes. Let t be the number of minutes that Camila practiced her tap routine. Write and solve an equation to find t .

$$t + 17 = 45$$

$$t = 28 \text{ minutes}$$

- 3 Samuel saved some money for a new phone, but then he spent \$24 of his savings on a pair of headphones. Now he has \$189 left. Let d be the number of dollars Samuel had originally saved. Write and solve an equation to find d .

$$d - \$24 = \$189$$

$$d = \$213$$

- 4 In Mr. Hamilton's classroom, there are 16 supply boxes in the cabinet. Each supply box contains the same number of markers, and there are 192 markers in all. Let m be the number of markers in each supply box. Write and solve an equation to find m .

$$16m = 192$$

$$m = 12$$

- 5 Maya brought some orange slices for her volleyball team to eat between games. They divided the orange slices equally among the 8 team members, so each team member got 6 orange slices. Let s be the number of orange slices Maya brought. Write and solve an equation to find s .

$$s \div 8 = 6$$

$$s = 48$$

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- 6 Violet is playing a board game with her friends. She earns 78 points during the game, and she receives a game-end bonus for achieving her secret objective. With her bonus, Violet came in second place with 91 points. Let b be the number of points Violet earned for the game-end bonus. Write and solve an equation for b .
- $78 + b = 91$
 $b = 13$ points
- 7 Each lap around the track at Lincoln Community Center is 400 meters long. Levi ran a total of 1,600 meters as a warm-up before his workout. Let w be the number of laps Levi ran around the track as a warm-up. Write and solve an equation to find w .
- $400w = 1,600$
 $w = 4$ laps
- 8 Dominic checked out a book from the library, and he has 11 days to read the book before he needs to return it. He calculates that he needs to read 17 pages each day to finish the book just in time. Let p be the total number of pages in the book. Write and solve an equation to find p .
- $p \div 17 = 11$
 $p = 187$ pages
- 9 Bradley's new puppy, Rufus, weighed 8.6 pounds at his first visit to the veterinarian. At his second visit, Rufus weighed 14.2 pounds. Let p be the number of pounds Rufus gained between visits. Write and solve an equation to find p .
- $8.6 + p = 14.2$
 $p = 5.6$ pounds
- 10 Gabriella went to Tiers of Joy Bakery to buy her mom's birthday cake. The cake was \$25.52, which left Gabriella with \$24.48 to spend on her mom's present. Let a be the amount of money Gabriella had before buying the cake. Write and solve an equation to find a .
- $a - \$25.52 = \24.48
 $a = \$50$