

EXTRA PRACTICE 4

Problem Solving

Use after Section 2.5

Name _____

Example: When 17 is subtracted from 5 times a certain number, the result is 73. What is the number?

Let x = the number.

5 times a certain number translates to $5x$.

When 17 is subtracted from 5 times a certain number translates to $5x - 17$.

Solve: $5x - 17 = 73$

$$5x = 90$$

$$x = 18$$

The value 18 checks in the original problem.

The number is 18.

Solve.

1. When 9 is added to four times a number, the result is 37. Find the number.

2. When you double a number and then add 22, you get $\frac{5}{8}$ of the original number. Find the number. _____

3. A 59-m rope is cut into three pieces. The second piece is twice as long as the first. The third piece is 3 m longer than the first. How long is each piece of rope? _____

4. A 900-ft fence is divided into three sections. The second section is twice as long as the first. The third section is three times as long as the second. Find the lengths of the sections.

5. The perimeter of a rectangle is 66 m. The width is 9 m less than the length. Find the length and the width. _____

6. The sum of the page numbers on the facing pages of a book is 229. What are the page numbers? _____

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7. The sum of three consecutive odd integers is 201. Find the integers. _____
8. A-Rite Rentals rents cars at a daily rate of \$17.95 plus 15¢ per mile. The Jackson family has budgeted \$55 for renting a car for one day. How many miles can the Jacksons drive the car on a \$55 budget? _____
9. The second angle of a triangle is twice as large as the first. The third angle is 60° less than the second. Find the measures of the angles. _____
10. After a 25% price reduction, a computer is on sale at \$288.75. What was the original price? _____
11. Money is invested in a savings account at 6% simple interest. After one year there is \$1007 in the account. How much was originally invested? _____
12. Money is borrowed at 12% simple interest. After one year \$1680 pays off the loan. How much was originally borrowed? _____

