

- 1) Finish Quiz
- 2) Check homework
- 3) Lesson: Writing and solving equations from word problems notes page 47
- 4) Homework: finish page 47-48,
pages 62-63 (1-15 on loose-leaf paper)

Feb 7-11:41 AM

Translate each verbal phrase into an algebraic expression or equation.

1) Seven less than a number is 15
 $n - 7 = 15$

2) The total of 5 and c
 $5 + c$

3) 7 less than m
 $m - 7$

4) The sum of a number and 16 is 23
 $a + 16 = 23$

5) the score increased by 8 points
 $s + 8$

6) The quotient of w and 10 is equal to 7
 $\frac{w}{10} = 7 \quad w : 10 = 7$

7) 17 more than some number is 57
 $n + 17 = 57$

8) \$12 less than the original price is \$48
 $o - 12 = 48$

P.44

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P.45

Translate each verbal phrase into an algebraic expression or equation.

- 13) Seven more than the quotient of a number and 2 is 10.

$$\frac{x}{2} + 7 = 10$$

- 15) One less than the product of four and a number is 11.

$$4x - 1 = 11$$

- 17) Ten more than the quotient of a number and 3 is 12.

$$\frac{a}{3} + 10 = 12$$

- 19) The sum of 9 and the quotient of x and 7 is 11.

$$9 + \frac{x}{7} = 11$$

- 14) Five less than twice a number is 7.

$$\begin{array}{r} 5 - a^2 = 7 \\ 2a - 5 = 7 \end{array}$$

- 16) Six less than six times a number is 12.

$$6a - 6 = 12$$

- 18) Seven more than twice a number is 1.

$$2x + 7 = 1$$

- 20) The product of 8 and the difference of n and 3.

$$8(n - 3)$$

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Word ProblemsP.47

Write "let" statements and solve algebraically.

- 1) Eight times a number equals 35 more than the number. Find the number.

Let x represent the number.

check $8x = x + 35$

$$\begin{array}{rcl} 8(5) & = & 5 + 35 \\ 40 & = & 40 \checkmark \end{array}$$

$$\begin{array}{rcl} 8x & = & x + 35 \\ -x & & -x \\ 7x & = & 35 \\ \hline x & = & 5 \end{array}$$

- 2) Six times a number equals 3 times the number, increased by 24. Find the number.

Let a = the number.check

$$6a = 3a + 24$$

$$6(8) = 3(8) + 24$$

$$48 = 24 + 24$$

$$48 = 48 \checkmark$$

$$\begin{array}{rcl} 6a & = & 3a + 24 \\ -3a & & -3a \\ 3a & = & 24 \\ \hline a & = & 8 \end{array}$$

$$\begin{array}{rcl} 3a & = & 24 \\ \hline a & = & 8 \end{array}$$

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3) $\underline{2n} = \underline{35 + 7n}$
 Twice a number is equal to 35 more than 7 times the number. Find the number.
 Let n = the number.

$$\begin{array}{rcl} 2n & = & 35 + 7n \\ -7n & & -7n \end{array}$$

$$\begin{array}{rcl} -5n & = & 35 \\ -3 & & -5 \\ n & = & -7 \end{array}$$

check

$$\begin{aligned} 2n &= 35 + 7n \\ 2(-7) &= 35 + 7(-7) \\ -14 &= 35 + (-49) \\ -14 &= -14 \checkmark \end{aligned}$$

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4) If a number is multiplied by 7, the result is the same as when 25 is added to twice the number. Find the number.

Let y represent the number.

$$\begin{array}{rcl} 7y & = & 25 + 2y \\ -2y & & -2y \\ 5y & = & 25 \\ \hline 5 & & 5 \end{array}$$

$y = 5$ Q

5) If twice a number is subtracted from 132, the result equals four times the number. Find the number.

$35 = 35$

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6) If 3 is added to 5 times a number, the result is the same as when 15 is added to twice the number. Find the number.

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7) If 4 times a number is decreased by 9, the result is the same as when 3 times the number is decreased by 1. Find the number.

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