

**LESSON** **Practice C**  
**2-2** *Translate Between Words and Math*

**Write each phrase as a numerical or algebraic expression.**

1. the sum of 69, 140, and 300  
 \_\_\_\_\_
2. 95 less than the quotient of  $x$  and 12  
 \_\_\_\_\_
3. 144 less than 500  
 \_\_\_\_\_

4. 22 added to the product of 14 and  $n$   
 \_\_\_\_\_
5. The difference of 98 and  $p$ , added to 4  
 \_\_\_\_\_
6. 85 more than twice  $m$   
 \_\_\_\_\_

**Write two phrases for each expression.**

7.  $\frac{150}{n}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

8.  $79 - w$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

9.  $12 + 29q$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

10.  $(87 - p) + 11$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

11.  $(28 \div x) - 6$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

12.  $(4 + z) - 18z$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

13. Mohamed bought several bottles of juice for \$3 each. He paid for them all with a \$20 bill. If  $j$  represents the number of bottles Mohamed bought, what expression represents the change he would receive?  
 \_\_\_\_\_

14. A giant bamboo plant grew 18 inches per year. When Mrs. Sanchez started measuring the plant it was 5 inches tall. If  $y$  represents the number of years she measured the plant, what expression represents its height?  
 \_\_\_\_\_

**LESSON Practice A**  
**2-2 Translate Between Words and Math**

Circle the letter of the correct answer.

- Which of the following is the solution to an addition problem?  
**A** product  
**(B)** sum  
**C** plus  
**D** add
- Which of the following is the solution to a subtraction problem?  
**F** minus  
**G** times  
**(H)** difference  
**J** less
- Which word phrase represents the following expression:  $5 \cdot 3$ ?  
**(A)** the product of 5 and 3  
**B** 5 less than 3  
**C** the quotient of 5 and 3  
**D** the sum of 5 and 3
- Which word phrase represents the following expression:  $14 \div n$ ?  
**F** the difference of 14 and  $n$   
**G** 14 more than  $n$   
**H** take away  $n$  from 14  
**(J)** the quotient of 14 and  $n$

Match each situation to its algebraic expression below.

- A.**  $8 \div x$    **B.**  $8x$    **C.**  $8 - x$    **D.**  $x + 8$    **E.**  $x - 8$    **F.**  $x \div 8$
- 8 take away  $x$    **C**
  - the product of 8 and  $x$    **B**
  - 8 more than  $x$    **D**
  - Lily bought 14 beads and lost some of them. This situation is modeled by the expression  $14 - x$ . What does  $x$  represent in the expression?  
the number of beads she lost
  - $x$  divided by 8   **F**
  - the quotient of 8 and  $x$    **A**
  - $x$  decreased by 8   **E**
  - The pet store put the same number of hamsters in 6 cages. This situation is modeled by the expression  $6n$ . What does  $n$  represent?  
the number of hamsters in each cage

**LESSON Practice B**  
**2-2 Translate Between Words and Math**

Write an expression.

- Terry's essay has 9 more pages than Stacey's essay. If  $s$  represents the number of pages in Stacey's essay, write an expression for the number of pages in Terry's essay.  
 $s + 9$
- Let  $z$  represent the number of students in a class. Write an expression for the number of students in 3 equal groups.  
 $\frac{z}{3}$

Write each phrase as a numerical or algebraic expression.

- 24 multiplied by 3    $24 \cdot 3$
- $n$  multiplied by 14    $n \cdot 14$
- $w$  added to 64    $64 + w$
- the difference of 58 and 6    $58 - 6$
- $m$  subtracted from 100    $100 - m$
- the sum of 180 and 25    $180 + 25$
- the product of 35 and  $x$     $35x$
- the quotient of 63 and 9    $63 \div 9$
- 28 divided by  $p$     $28 \div p$

Write two phrases for each expression. Possible answers are given.

- $n + 91$     $n$  plus 91; 91 more than  $n$
- $35 \div r$    35 divided by  $r$ ; the quotient of 35 and  $r$
- $20 - s$    20 minus  $s$ ;  $s$  less than 20
- Charles is 3 years older than Paul. If  $y$  represents Paul's age, what expression represents Charles's age?  
 $y + 3$
- Maya bought some pizzas for \$12 each. If  $p$  represents the number of pizzas she bought, what expression shows the total amount she spent?  
 $12p$

**LESSON Practice C**  
**2-2 Translate Between Words and Math**

Write each phrase as a numerical or algebraic expression.

- the sum of 69, 140, and 300    $69 + 140 + 300$
- 95 less than the quotient of  $x$  and 12    $(x \div 12) - 95$
- 144 less than 500    $500 - 144$
- 22 added to the product of 14 and  $n$     $14n + 22$
- The difference of 98 and  $p$ , added to 4    $4 + (98 - p)$
- 85 more than twice  $m$     $2m + 85$

Write two phrases for each expression. Possible answers are given.

- $\frac{150}{n}$    150 divided by  $n$ ; the quotient of 150 and  $n$
- $79 - w$    79 take away  $w$ ; the difference of 79 and  $w$
- $12 + 29q$    12 plus the product of 29 and  $q$ ; the product of 29 and  $q$  added to 12
- $(87 - p) + 11$    the difference of 87 and  $p$ , plus 11; 11 added to 87 minus  $p$
- $(28 \div x) - 6$    6 less than the quotient of 28 and  $x$ ; 28 divided by  $x$ , minus 6
- $(4 + z) - 18z$    the sum of 4 and  $z$ , minus the product of 18 and  $z$ ; 4 plus  $z$ , minus 18 times  $z$
- Mohamed bought several bottles of juice for \$3 each. He paid for them all with a \$20 bill. If  $j$  represents the number of bottles Mohamed bought, what expression represents the change he would receive?  
 $20 - 3j$
- A giant bamboo plant grew 18 inches per year. When Mrs. Sanchez started measuring the plant it was 5 inches tall. If  $y$  represents the number of years she measured the plant, what expression represents its height?  
 $5 + 18y$

**LESSON Reteach**  
**2-2 Translate Between Words and Math**

There are key words that tell you which operations to use for mathematical expressions.

Addition (combine)	Subtraction (less)	Multiplication (put together groups of equal parts)	Division (separate into equal groups)
add plus sum total increased by more than	minus difference subtract less than decreased by take away	product times multiply	quotient divide

You can use key words to help you translate between word phrases and mathematical phrases.

- A.** 3 plus 5   **B.** 3 times  $x$    **C.** 5 less than  $p$    **D.**  $h$  divided by 6  
 $3 + 5$     $3x$     $p - 5$     $h \div 6$

Write each phrase as a numerical or algebraic expression.

- 4 less than 8    $8 - 4$
- $q$  divided by 3    $q \div 3$
- $f$  minus 6    $f - 6$
- $d$  multiplied by 9    $d \cdot 9$

You can use key words to write word phrases for mathematical phrases.

- A.**  $7k$   
 • the product of 7 and  $k$   
 • 7 times  $k$
- B.**  $5 - 2$   
 • 5 minus 2  
 • 2 less than 5

Write a phrase for each expression. Possible answers are given.

- $z \div 4$     $z$  divided by 4
- $5 \cdot 6$    5 times 6
- $m - 6$    6 less than  $m$
- $s + 3$     $s$  plus 3