

SECTION

1A

Ready to Go On? Skills Intervention**1-6 Writing Algebraic Expressions**

To solve real world problems, expressions using words must be translated into algebraic expressions.

Translating Verbal Expressions into Algebraic Expressions

Write each phrase as an algebraic expression.

A. the quotient of 40 and m

The word *quotient* means _____. The symbol is _____.

Write the expression: _____.

B. 17 more than a number, n

The words *more than* mean _____. The symbol is _____.

Write the expression: _____.

C. 3 times the difference of a number and 10

Write an expression for *3 times*. _____

What does *difference* mean? _____ What symbol do you use? _____

Write an expression for the *difference of a number and 10*. _____

Write the expression. _____

D. the sum of 6 times a number and 5

Write an expression for *6 times a number*. _____

What operation and symbol do you use for the word *sum*? _____

Write the expression. _____

Translating Real-World Problems Into Algebraic Expressions

Geraldine pays a flat monthly cable fee of \$35.00 per month and \$5.00 for every movie she orders. Write an expression to represent her monthly cable bill.

Let ____ represent the number of movies she orders.

How much does she pay for one movie? _____

The total amount spent for movies ordered every month is _____.

The monthly cable bill is the _____ of the flat fee and the movie fee,
or _____ + _____.

SECTION 1A **Ready to Go On? Problem Solving Intervention**
1-6 Writing Algebraic Expressions

To solve some problems, you may need to write an expression that contains more than one operation.

You are painting model cars. It takes a total of 20 minutes to set up and clean up. It takes 8 minutes to paint each car. Write an expression to show the total time it takes to paint n cars.

Understand the Problem

1. What will n stand for in the expression you write?

2. How many minutes are spent on each part of the job?

Make a Plan

3. Write an expression for the time in minutes you spend actually painting the n cars, not counting setting up and cleaning up.

Solve

4. Write an expression for the total time in minutes needed to paint n cars, including setting up and cleaning up.

Check

5. According to the expression you wrote, how many minutes in all are needed for one car? Why does that make sense?

Write an expression for each quantity.

6. The total cost in dollars to buy v videos from a club that charges \$11 for each video plus a \$5 shipping and handling charge for the order.

7. The number of dollars you earn in a month for selling p cars if you get \$300 for each car you sell plus a base salary of \$650 per month.

8. The number of dollars you get in change if you buy m magazines that cost \$3 each and you pay with a \$20 bill.
