

# 1.3 Write Expressions



TEKS **a.2, A.3.A**

**Before**

You evaluated expressions.

**Now**

You will translate verbal phrases into expressions.

**Why?**

So you can find the time needed to do a job, as in Ex. 36.

## Key Vocabulary

- verbal model
- rate
- unit rate

To translate verbal phrases into expressions, look for words that indicate mathematical operations.

### KEY CONCEPT

*For Your Notebook*

#### Translating Verbal Phrases

Operation	Verbal Phrase	Expression
<b>Addition:</b> sum, plus, total, more than, increased by	The sum of 2 and a number $x$	$2 + x$
	A number $n$ plus 7	$n + 7$
<b>Subtraction:</b> difference, less than, minus, decreased by	The difference of a number $n$ and 6	$n - 6$
	A number $y$ minus 5	$y - 5$
<b>Multiplication:</b> times, product, multiplied by, of	12 times a number $y$	$12y$
	$\frac{1}{3}$ of a number $x$	$\frac{1}{3}x$
<b>Division:</b> quotient, divided by, divided into	The quotient of a number $k$ and 2	$\frac{k}{2}$

Order is important when writing subtraction and division expressions. For instance, “the difference of a number  $n$  and 6” is written  $n - 6$ , *not*  $6 - n$ , and “the quotient of a number  $k$  and 2” is written  $\frac{k}{2}$ , *not*  $\frac{2}{k}$ .

### EXAMPLE 1 Translate verbal phrases into expressions

#### AVOID ERRORS

When you translate verbal phrases, the words “the quantity” tell you what to group. In part (a), you write  $6n - 4$ , *not*  $(6 - 4)n$ .

Verbal Phrase	Expression
a. 4 less than the quantity 6 times a number $n$	$6n - 4$
b. 3 times the sum of 7 and a number $y$	$3(7 + y)$
c. The difference of 22 and the square of a number $m$	$22 - m^2$



#### GUIDED PRACTICE for Example 1

1. Translate the phrase “the quotient when the quantity 10 plus a number  $x$  is divided by 2” into an expression.