

# EXERCISES

 For more practice, see *Extra Practice*.

## A Practice by Example


**Example 1**  
(page 74)

Write an expression for each word phrase.

1. 34 less than  $k$
2. 4 plus  $e$
3.  $d$  more than 50
4. 23 times  $q$
5. 7 decreased by  $b$
6.  $b$  divided by 3

**Example 2**  
(page 75)

Write an expression for each situation.

-  7. **Boating** A paddle boat rents for \$10 plus \$8 per hour. How much does it cost to rent a paddle boat for  $h$  hours?
8. You buy one 10-pack of juice boxes. Each juice box contains  $j$  ounces. How many ounces of juice did you buy?

**Example 3**  
(page 75)

Write an expression to describe the relationship of the data in each table.

9.

$n$	■
10	7
12	9
15	12


10.

$n$	■
1	7
2	14
3	21

11.

$n$	■
3	5
4.5	6.5
7	9

**Example 4**  
(page 76)

-  12. **a. Jobs** Jon and his two brothers make money by doing yardwork for neighbors. The boys split the money equally. Write an expression that describes how much money each boy makes in one day.  
**b.** If they get \$36 for yardwork, how much does each boy receive?
13. **a.** A bike shop has been in business 20 years longer than a skateboard store across the street. The bike shop is  $y$  years old. Write an expression for the number of years the skateboard store has been in business.  
**b.** If the bike shop is 27 years old, how old is the skateboard store?

## B Apply Your Skills

Write an expression to describe the relationship of the data in each table.

14.

$n$	■
42	7
54	9
72	12

15.

$n$	■
1	11
2	22
3	33

16.

$n$	■
30	23
45	38
52	45



**Real-World Connection**

A regular-size pan of lasagna weighs about 3 pounds.

17. **a. Cooking** The largest pan of lasagna weighed 3,477 pounds. The length of the pan was ten times its width. Write an algebraic expression for the length of the pan of lasagna in terms of its width  $w$ .
- b.** The lasagna measured 7 feet wide. Evaluate the expression to find the length of the pan of lasagna.

**Write an expression for each word phrase.**

18. 5 less than the quotient of  $m$  and  $n$
19. 12 greater than the product of 3 and  $j$

20. **Buying Paint** Customers in a paint store use the chart at the right to decide how many gallons of paint they need. Write an expression that relates the painted area  $A$  in square feet to the number of gallons of paint.

Area sq. ft.	Gallons
400	1
800	2
2,000	5
3,200	8

21. **Writing in Math** Describe a situation you could model with  $y + 50$ .

22. **Zoo** On Saturday, admission to the zoo costs \$3 per person. The Sengs have a coupon for a discount of \$5 off for a family. There are  $p$  people in the Seng family. Write an expression for how much the Sengs pay for admission to the zoo if they use the coupon.

**C Challenge**

23. A store that personalizes T-shirts charges \$20 for a shirt plus \$.75 for each letter. Write an algebraic expression for the total cost of a shirt using  $n$  letters.
24. **Stretch Your Thinking** The 4-digit number 2, ■ ■ 5 is a product of a number and itself. What are the two missing digits?



## Test Prep

### Multiple Choice

25. Which of the following describes the expression  $uv$ ?
- A. the difference of  $u$  and  $v$                       B. the total of  $u$  and  $v$   
C.  $u$  divided by  $v$                                       D. the product of  $u$  and  $v$
26. Which of the following does NOT describe the expression  $x - 36$ ?
- F.  $x$  minus 36    G.  $x$  less than 36  
H. 36 subtracted from  $x$                               I. 36 less than  $x$
27. In what order should operations be performed in the expression  $36 \times 7 - 12 \div 2 + 3$ ?
- A.  $\times - \div +$                       B.  $- + \times \div$                       C.  $\div \times + -$                       D.  $\times \div - +$
28. If you know the dimensions of a piece of property, which operation will be most useful in finding the perimeter of the property?
- F. addition                      G. subtraction                      H. multiplication                      I. division



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Online lesson quiz at  
[www.PHSchool.com](http://www.PHSchool.com)

Web Code: aaa-0203

## Mixed Review

### Lesson 1-5

Find each sum.

29.  $4.432 + 1.009$

30.  $2.005 + 12.5$

31.  $2.449 + 0.7$

### Lesson 1-4

Estimate each product by first rounding to the nearest whole number.

32.  $2.25 \times 13.76$

33.  $38.1 \times 9.87$

34.  $15.23 \times 3.47$