

Practice and Problem Solving

A Practice by Example

Example 1 (page 4)

Write an algebraic expression for each phrase.

1. 4 more than p
2. y minus 12
3. 12 minus m
4. the product of c and 15
5. the quotient of n and 8
6. the quotient of 17 and k
7. 23 less than x
8. the sum of v and 3

Example 2 (page 5)

Define a variable and write an expression for each phrase.

9. 2 more than twice a number
10. a number minus 11
11. 9 minus a number
12. a number divided by 82
13. the product of 5 and a number
14. the sum of 13 and twice a number
15. the quotient of a number and 6
16. the quotient of 11 and a number

Example 3 (page 5)

Define variables and write an equation to model each situation.

17. The total cost is the number of cans times \$.70.
18. The perimeter of a square equals 4 times the length of a side.
19. The total length of rope, in feet, used to put up tents is 60 times the number of tents.
20. What is the number of slices of pizza left from an 8-slice pizza after you have eaten some slices?

Example 4
(page 6)

Define variables and write an equation to model the relationship in each table.

21.

Number of Workers	Number of Radios Built
1	13
2	26
3	39
4	52

22.

Number of Tapes	Cost
1	\$8.50
2	\$17.00
3	\$25.50
4	\$34.00

23.

Number of Sales	Total Earnings
5	\$2.00
10	\$4.00
15	\$6.00
20	\$8.00

24.

Number of Hours	Total Pay
4	\$32
6	\$48
8	\$64
10	\$80

B Apply Your Skills

Write an expression for each phrase.

25. the sum of 9 and k minus 17 26. 6.7 more than 5 times n
 27. 9.85 less than the product of t and 37 28. the quotient of $3b$ and 4.5
 29. 15 plus the quotient of 60 and w 30. 7 minus the product of v and 3
 31. the product of m and 5, minus the quotient of t and 7
 32. the sum of the quotient of p and 14 and the quotient of q and 3
 33. 8 minus the product of 9 and r

Write a phrase for each expression.

34. $q + 5$ 35. $3 - t$ 36. $9n + 1$ 37. $\frac{y}{5}$ 38. $7hb$

Define variables and write an equation to model the relationship in each table.

39.

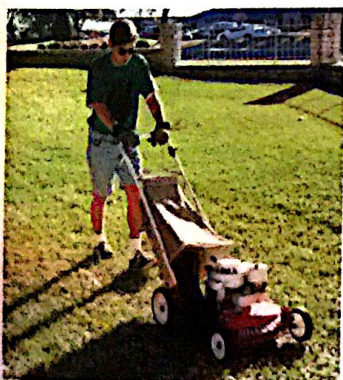
Number of Days	Change in Height (meters)
1	0.165
2	0.330
3	0.495
4	0.660

40.

Time (months)	Length (inches)
1	4.1
2	8.2
3	12.3
4	16.4

41. Use the table at the right.
 a. Does each statement fit the data in the table? Explain.
 i. hours worked = lawns mowed \cdot 2
 ii. hours worked = lawns mowed + 3
 b. **Writing** Which statement in part (a) better describes the relationship between hours worked and lawns mowed? Explain.

Lawns Mowed	Hours
1	
2	
3	6



Real-World Connection

In 1998, people in the United States spent more than \$8.5 billion on lawn care.

42. a. **Money** Write an equation to show how the amount of money in a bag of quarters relates to the number of quarters in the bag.
 b. The bag contains 13 quarters. How much money is this?