

Name \_\_\_\_\_

Kestrel 3<sup>rd</sup> grade

**PROBLEM-SOLVING SKILL**

**P 2-13**

# Translating Words into Expressions

Write each word phrase as an algebraic expression.

1. the product of 5 and  $n$

5n

2. a height divided by 3

$h \div 3$

3. \$200 less than  $n$

$n - \$200$

4. a number of books plus 30

$a + 30$

5. **Number Sense** Explain what the expression  $6x$  means.

The product of 6 and  $x$

6. Dan is 12 in. taller than Jay. Use  $x$  for Jay's height. Which expression shows Dan's height,  $x + 12$ ,  $x - 12$ , or  $12x$ ?

$x + 12$

7. There are 60 min in a hour. If there are  $y$  hr in a day, what expression shows the number of minutes in a day,  $60y$ ,  $60 + y$ , or  $\frac{y}{60}$ ?

$60y$

8. Write two word phrases for the expression  $\frac{t}{30}$ .

the quotient of  $t$  and 30

$t$  divided by 30

9. **Writing in Math** Explain the difference between the expressions  $x - 3$  and  $3 - x$ .

They will be the same number

except one is + one is -

# Variables and Expressions

1. Write an algebraic expression to represent the cost of a concert ticket,  $h$ , with a service charge of \$6.75.

$h + \$6.75$

2. Write an algebraic expression to represent the cost of  $m$  gallons of gasoline if each gallon costs \$1.45.

$\$1.45m$

Evaluate each expression for  $n = 3$  and  $n = 6$ .

3.  $0.2 \times n$     0.6    1.2

4.  $n - 2.1$     0.9    3.9

5.  $\frac{12}{n}$     4    2

6.  $35 + n$     38    41

Complete each table.

7.

$n$	$0.9 + n$
0.5	1.4
0.2	1.1
0.15	1.05
0.1	1

8.

$n$	$96 \div n$
1	96
2	48
3	32
4	24

9. **Representations** What is another way to write the expression  $44n$ ?  $44 \div n$ ?

$44 \times n$

$\frac{44}{n}$

## Test Prep

10. Which is the correct product of  $n \times 7$  if  $n = \$0.25$ ?

A. \$3.25

B. \$2.75

C. \$2.25

D. \$1.75

11. **Writing in Math** Write a situation that can be represented by the algebraic expression  $\$3.25d$ .

If you want to buy  $d$  tickets to a movie and each ticket is \$3.25 you would spend \$3.25d

# Variables and Expressions

Write each word phrase as an algebraic expression.

1. twice  $n$                       2. 3 less than  $p$                       3.  $c$  increased by 6

2n                                      p-3                                      c+6

4.  $m$  times 31                      5.  $5d$  minus 4                      6. 50 divided by  $t$

31m                                      5d-4                                      50 ÷ t

7. **Number Sense** What is a word phrase for  $42 + 36 + n$ ?

seventy-eight plus n

Evaluate each expression for  $y = 2, 6,$  and  $8$ .

8. $y + 12$	<u>14</u> , <u>18</u> , <u>20</u>	9. $\frac{96}{y}$	<u>48</u> , <u>16</u> , <u>12</u>
10. $5y$	<u>10</u> , <u>30</u> , <u>40</u>	11. $\frac{y}{2}$	<u>1</u> , <u>3</u> , <u>4</u>
12. $11y$	<u>22</u> , <u>66</u> , <u>88</u>	13. $561 - y$	<u>559</u> , <u>555</u> , <u>553</u>

14. A state produces  $b$  peaches per month. Write an expression for the average number of peaches produced each year.

12b

15. The Oregon Dunes national resource area in Oregon covers 27,212 acres. Another national resource area in New Mexico covers  $v$  acres. Write an expression that shows the approximate number of acres covered by both areas.

v + 27,212

## Test Prep

16. Evaluate the expression  $10f$  if  $f = 31$ .

- A. 3.1                      B. 31                      **C. 310**                      D. 3,100

17. **Writing in Math** Write two different word phrases for  $5h$ .

five times h

h multiplied by five

X

3  
18