Name _____ Class _____ Date _____

1-1 Practice

Form G

Variables and Expressions

Write an algebraic expression for each word phrase.

1. 10 less than x
   $x - 10$

2. 5 more than d
   $5 + d$

3. 7 minus f
   $7 - f$

4. the sum of 11 and k
   $11 + k$

5. x multiplied by 6
   $x \cdot 6$

6. a number t divided by 3
   $t \div 3$

7. one fourth of a number n
   $n \div 4$

8. the product of 2.5 and a number t
   $2.5 \cdot t$

9. the quotient of 15 and y
   $15 \div y$

10. a number q tripled
    $q \cdot 3$

11. 3 plus the product of 2 and h
    $3 + 2 \cdot h$

12. 3 less than the quotient of 20 and x
    $20 \div x - 3$

Write a word phrase for each algebraic expression.

13. $n + 6$
    the sum of n and 6

14. $5 - c$
    5 less than c

15. $11.5 + y$
    the sum of 11.5 and y

16. $\frac{x}{4} - 17$
    17 less than the quotient of x and 4

17. $3x + 10$
    10 more than the product of 3 and x

18. $10x + 7z$
    the sum of $10x$ and $7z$

Write a rule in words and as an algebraic expression to model the relationship in each table.

19. The local video store charges a monthly membership fee of \$5 and \$2.25 per video.

Videos (v)	Cost (c)
1	\$7.25
2	\$9.50
3	\$11.75

\$5 plus \$2.25 times the number of videos; $5 + 2.25v$

1-1 Practice (continued) Form G

Variables and Expressions

20. Dorothy gets paid to walk her neighbor's dog. For every week that she walks the dog, she earns $10.

Weeks (w)	Pay (p)
4	$40.00
5	$50.00
6	$60.00

$10 times the number of weeks; $10w$

Write an algebraic expression for each word phrase.

21. 8 minus the quotient of 15 and y **$8 - 15 \div y$**

22. a number q tripled plus z doubled **$3q + 2z$**

23. the product of 8 and z plus the product of 6.5 and y **$8z + 6.5y$**

24. the quotient of 5 plus d and 12 minus w **$\frac{5 + d}{12 - w}$**

25. Error Analysis A student writes $5y \cdot 3$ to model the relationship *the sum of 5y and 3*. Explain the error.

The word "sum" indicates that addition should be used and not multiplication. The student has used the multiplication symbol instead of the +.

26. Error Analysis A student writes *the difference between 15 and the product of 5 and y* to describe the expression $5y - 15$. Explain the error.

The number 15 should be first and the expression should be written $15 - 5y$.

27. Jake is trying to mail a package to his grandmother. He already has s stamps on the package. The postal worker tells him that he's going to have to double the number of stamps on the package and then add 3 more. Write an algebraic expression that represents the number of stamps that Jake will have to put on the package.

$2s + 3$