Name: _____

Practice & Problem Solving ✏️ ⏻

In 11–14, write an algebraic expression for each situation.

11. 12 times a number g

12. p pennies added to 22 pennies

13. 22 divided by a number s

14. $12\frac{3}{4}$ less than the product of 7 and a number x

In 15–18, tell how many terms each expression has.

15. $5 - g$

16. $3 + \frac{1}{2}b$

17. $\frac{v}{3} + 2 \cdot 5$

18. $16.2 - (3 \cdot 4) + (14 \div 2)$

In 19 and 20, use the expression $5.3t - (20 \div 4) + 11$.

19. Which part of the expression is a quotient? Describe its parts.

20. Which part of the expression is a product of two factors? Describe its parts.

In 21 and 22, use the table at the right.

21. Model with Math Write an expression to show how much longer the round-trip to San Diego is than the round-trip to San Jose. How many terms does the expression have?

22. Make Sense and Persevere Last month, a truck driver made 5 round-trips to Los Angeles and some round-trips to San Diego. Write an expression that shows how many miles he drove in all. Identify and describe the part of the expression that shows how many miles he drove and trips he made to San Diego.

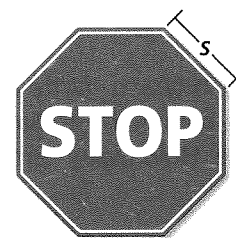| Sacramento to ...	Round-Trip Distance (miles)
San Jose	236
Los Angeles	770
San Diego	1,012

23. Use the expression $y \div 3(4 - 2) + 5.5$ to complete the table. Identify the parts of the expression that correspond to the descriptions.

Description of Part	Part
Variable	
Difference	
Product	
Constant numerical value	

24. A float in the Tournament of Roses parade may use as many flowers as a florist sells in 6 years. If *f* is the number of flowers a florist sells in 1 year, write an algebraic expression to represent the number of flowers a float in the parade may use.

25. **Critique Reasoning** Anthony says that the expression abc has three terms because it uses three different variables. Critique Anthony's reasoning and explain whether he is correct.

26. Yuri walked p poodles and b bulldogs on Monday. He walked the same number of poodles and bulldogs each day Tuesday through Friday as he did on Monday. Write an algebraic expression to represent how many total dogs were walked in this 5-day period.

27. **Higher Order Thinking** Some students equally share 2 baskets of apples. Each basket has 12 apples. Write an algebraic expression to represent this situation. Then explain how you chose which variable and operations to use.

28. **Model with Math** The figure at the right is a regular octagon with side length s. Write two algebraic expressions that use different operations to represent the perimeter of the figure.
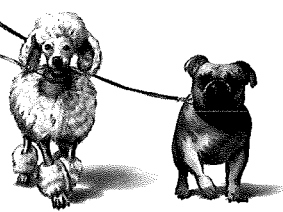
Assessment Practice

29. Which algebraic expression could **NOT** represent the phrase below?

Four more than the product 3 times the number of c cats

Ⓐ $4 + 3c$

Ⓑ $(4 + 3)c$

Ⓒ $3 \cdot c + 4$

Ⓓ $(3 \times c) + 4$

30. Which phrase could be best represented by the algebraic expression $\frac{w}{4} - 4$?

Ⓐ the quotient of four and a number w

Ⓑ the difference between a number w and 4

Ⓒ four less than w divided by 4

Ⓓ four less than a number w