Chapter 4 Review

Name: _____ Date: _____ Period: _____

Write each multiplication expression using an exponent.

1. 5 x 5 x 5 x 5 2. n x n x n 3. 9 x 9 x 9 x 9 x 9 x 9

Write each exponential expression as repeated multiplication.

4. z^3 5. 6^2 6. b^5

Use the order of operations to simplify.

7. $2 \times 12 \div (2 + 6) + 2^3$ 8. $\frac{(4x3 - 9)^4}{5 + 4}$

Write the number of terms in each expression.

9. $6x^2$ 10. $9/2xy$ 11. $5x + y + 3x - 6$

12. Which expressions contain a coefficient of 4? Select all that apply.
    A. 4(5 +1) - 2y + 6 B. 3 + 4t - 7
    C. 2x + 3y + 8 - 5 D. 4n - 2m

Write each word phrase as an expression. Then use the order of operations to SOLVE.

13. The sum of 4 squared and nine times six

14. The product of 3 and the sum of two and four, divided by nine

15. The square of the product of three and four, divided by six more than ten

Write each word phrase as an expression. Use n as the variable. Then SOLVE the expression for n = 2.

16. The sum of a number and one, cubed, plus the cube of the number

17. The fourth power of a number, times 2, divided by 8

18. The quotient of a number cubed and two

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Simplify by combining like terms. Then SOLVE the expression for the given value of the variable.

19. $6a + 5 + 3a$, when $a = 1.5$

20. $m^2 + 4m^2 + 2$ when $m = 0$

Name the property that justify each statement.

21. $9 \times 7 = 7 \times 9$

22. $37 \times 0 = 0$

23. $1 \times 87 = 87$

24. $14 + 6 = 6 + 14$

25. $3(6a) = (3 \times 6)a$

26. $2b + 0 = 2b$

27. $4 + (6 + 8) = (4 + 6) + 8$

28. $2(15 \times 10) = 2(10 \times 15)$

29. Which expressions are equivalent to $3x + 2(x+5) + 1$? Select all that apply.

A. $5x + 11$
B. $5x + 1$
C. $3x + 2x + 5 + 1$
D. $3x + 2x + 10 + 1$

30. Match the equivalent expressions.

$3(p + 2) - 1$	$3p + 1$
$2p + 3(p +1)$	$3p + 5$
$2(p + 2) - 3 + 3p$	$5p + 1$
$5(2 +p) - 2p - 9$	$5p + 3$

Write an equivalent algebraic expression to represent the situation.

31. Troy's math test has two sections. The first section is 5 multiple- choice questions and 8 short answer questions. The second section is 12 multiple choice questions and 6 short answer questions. If each multiple choice question is worth X points and each short answer question is worth Y points, how many points is the test worth in all?

Find the area and perimeter of the following.

32. Length = 6ft width = 0.5 ft

33. Length = 15 cm width = 9 cm