Name: _____

Date: _____ Grade: _____

SECTION QUIZ 3-2



Remember:
Score an 85% or higher on all three quizzes and you may be exempt from the chapter test!



Congratulations! You have completed this section!
Answer the following questions to test your understanding of the material. When you are finished, hand in your quiz to your teacher. Each answer is worth 1.8 points.

Matching.

1. _____ base
2. _____ $A = s^2$
3. _____ exponential term
4. _____ math expression
5. _____ $V = s^3$
6. _____ square
7. _____ cube
8. _____ $A = l \bullet w$
9. _____ term
10. _____ $V = l \bullet w \bullet h$
11. _____ rectangle

(a) a number or part of a math expression
(b) a 4-sided geometric figure having opposite sides equal and all angles equal 90°
(c) a number that is raised to a power
(d) a 6-sided geometric figure having all sides equal and in the shape of a square with all angles equal to 90°
(e) formula for calculating the area of a square
(f) two or more math terms separated by operational symbols of addition or subtraction
(g) formula for calculating the area of a rectangle
(h) formula for calculating the volume of a cube
(i) general formula for calculating volume
(j) a number or term having an exponent
(k) a 4-sided geometric figure having all sides equal with all angles equal to 90°

True or False.

12. _____ 5 raised to the fourth power means the 5 is multiplied times itself four times.
13. _____ In the term 2^3, *2* is the base and *3* is the exponent.
14. _____ The math statement, $3 \times 3 \times 3$ is in exponential form.
15. _____ Area represents a series of squares side by side.
16. _____ Finding the square root of a number requires the opposite operation from that of squaring a number.

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Fill in the blank by using words from the Word Bank. (One is used more than once.) (17-26)

WORD BANK			
radical	negative	positive	exponential
ordered pairs	divide	exponents	multiply
division	fractional	radical	square root
whole	cube	order of operations	

17. A number with an exponent is said to be in _____ form.

18. The use of _____ represents a kind of shorthand or short cut in math.

19. If a negative base is raised to an odd power, the answer is always _____.

20. If a negative base is raised to an even power, the answer is always _____.

21. Following proper procedures in solving math problems is called _____.

22. The symbol, $\sqrt{\ }$, is called a _____ sign.

23. If the area is known, _____ is used to find the length of a side of a square.

24. The principal _____ of a number is always a positive whole number.

25. Perfect squares (square roots) of a number are always _____ numbers.

26. To _____ a number, its power must be raised to 3.

27. The square root of 400 is _____.
(a) 20 (b) 40 (c) 5 (d) 8

28. Area is measured in _____ units.
(a) square (b) cubic (c) volume (d) fractional

29. Volume is measured in _____ units.
(a) square (b) cubic (c) area (d) whole

30. Which of the following does **NOT** contain an exponential term? _____
(a) $5 \bullet 4 \bullet 3^2$ (b) 34^3 (c) $56 + 5 - 9$ (d) 0^{35}

31. Which of the following is an example of the Property of Fractions with Exponents? ____
(a) $(4/5)^2 = 2 \bullet 4/5$ (b) $(5/7)^3 = 5 \bullet 5/7$ (c) $(5/7)^{-1} = (7/5)^1$ (d) $(4/5)^2 = 4 \bullet 4/5 \bullet 5$

Write the order of operations for which PEMDAS stands:

32. P_____

33. E_____

34. M_____

35. D_____

36. A_____

37. S_____

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Simplify the following mathematical expressions. Remember to follow PEMDAS.

38. $2 \bullet 3 + [2(4 \div 2) - 4] =$ _____

39. $1 \bullet 4 - 2[3(6 - 5) + 2] + 6 =$ _____

40. $3^2 - 6 + (-3)^3 =$ _____

Work the following problems.

41. A building is 50 feet wide and 50 feet long. Calculate the area of the building. _____

42. An 8" × 10" picture is placed inside of an 11" × 14" matte frame. Calculate the area of the matte. _____

43. A box is 2 ft on all of the edges. The volume of the box is _____ cubic ft.

44. A storage building in the shape of a cube, 10 ft along a wall will hold _____ cubic ft of belongings.

45. A welder needed a piece of metal in the shape of a square. He needed to cover 64 sq ft. How long will each side of the square be to obtain 64 sq ft of metal? _____

46. A computer company ships its computer monitors in a box shaped like a cube. The edges of the box measure 2 ft. The monitor is 1.5 ft high, 1 ft deep, and 2 ft wide. What is the volume of "popcorn" packing needed to fill the space between the monitor and the box? _____

47. $3^2 - 2^2 =$ _____

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48. $2(4 - 2) + [5(9 - 2) - 3 \bullet 10] =$ _____

49. $(54321)^0 + 2^2 =$ _____

50. $\sqrt{121} =$_____

Match the Life Principles.

51. _____ *"You get married not to be happy*

52. _____ *"Nobody can go back and start a new beginning,*

53. _____ *"Problems are easier*

54. _____ *"Fill up your life with good, and*

55. _____ *"The hardest thing to find is*

(a) *but anyone can start today and make a new ending."*

(b) *when we get to the root of the problems."*

(c) *a person who can concentrate on what is important."*

(d) *but to make each other happy."*

(e) *there will be no room for bad."*