Name: _____

Date: _____ Grade: _____

Basic Math Skills

CHAPTER 4 TEST

Congratulations on completing this chapter! ***Answer the following questions to test your understanding of the material. When you finish, hand in your test to your teacher for a final grade. Each answer is worth 1.9 points.***

Fill in the blank or choose the correct answer.

1. The measures of _____ angles add to 180°.
(a) complementary (b) supplementary (c) right

2. Angles whose measures add to 90° are _____ angles.
(a) complementary (b) supplementary (c) obtuse

3. Vertical angles are located on _____ sides of intersecting lines.
(a) the same (b) opposite (c) parallel

4. Volume is often given in _____ units.
(a) square (b) cubic (c) linear

5. The symbols, { }, denote a _____.

6. To move a term from one side of the equals sign to the other requires the _____ operation to be performed.

7. Write the distance formula mathematically: _____.

8. A(n) _____ is a part of a line and contains only one endpoint.
(a) line segment (b) ray (c) intersection

9. _____ lines have no point of intersection.

10. _____ are formed by intersecting lines or rays.

11. The sum of the measures of interior angles of a transversal is _____ .

12. The measures of corresponding angles are _____.

13. The perimeter of a circle is its _____.

14. A _____ has six faces that are all squares.

15. A geometric figure having two parallel circular faces is a _____.

16. The number of sides of a pyramid is determined by the number of sides of the _____.

17. The number of faces of a solid is calculated by _____ the number of bases to the number of sides.

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Matching.

18. _____ plane	(a) parallel to
19. _____ trapezoid	(b) two parallel sides and two nonparallel sides
20. _____ parallelogram	(c) ▱
21. _____ hexagon	(d) six sides
22. _____ ∠	(e) angle
23. _____ ∥	(f) flat surface

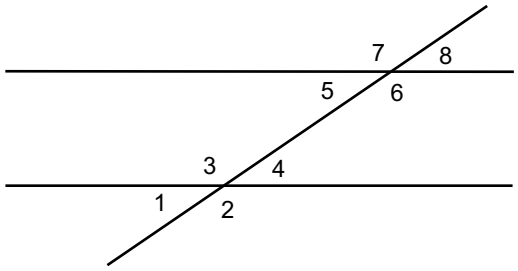
Look at figure to the right to answer questions 24-27.

24. $m\angle 3 + m\angle 4$ = _____.

25. ∠5 and ∠7 are _____ angles.

26. ∠2 and ∠3 are _____ angles.

27. ∠4 and ∠5 are _____ angles.



Matching (28-32).

28. _____ 	(a) cone
29. _____ 	(b) cube
30. _____ 	(c) rectangular prism
31. _____ 	(d) triangular prism
32. _____ 	(e) pyramid
	(f) cylinder

33. The total area of all the areas of the faces of a polyhedron is the _____ of a solid.

34. The formula for the area of a rectangle is _____.

35. The formula for the area of a triangle is _____.

Find the surface area of the following solids. Show your work in the space provided and place your answer on the blank for #36-39.

36. rectangular prism: 2 cm wide, 4 cm high, 6 cm deep _____

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37. triangular prism: 6 in. wide, 4 in. high, 5 in. long _____

38. square prism: 1 ft wide, 1 ft high, 5 ft long _____

39. sphere: diameter = 9 meters (use 3.14 = π) _____

Work the following problems (#40-44).

40. A pyramid has a base measurement of 4 in. by 6 in. and a slant height of 5 in. The surface area of the pyramid is _____ sq in.

41. A Christmas tin of popcorn purchased at a local store has a diameter of 10 inches and a height of 12 inches. The surface area of the tin is _____ sq in. (Use π = 3.14)

42. A scientist used a triangular prism to deflect a beam of light in an experiment. The end of the prism had a height of 4 cm and a base measurement of 2 cm. The prism was 6 cm long. The volume of the prism is _____.

43. The water co-op in a small community has a water supply tank in the shape of a sphere. The supply tank has a diameter of 40 feet. The volume of the tank in cubic feet is _____ cubic feet. (Use π = 3.14)

44. A cord of wood measures 4 ft by 4 ft by 8 ft. The amount of space (volume) occupied by the cord of wood is _____ cubic feet. Hint: Use the formula for the volume of a rectangular prism.

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Solve the following equations for *x*. Place the solution in set symbols on the blank. Show your work in the space provided.

45. $2x + 8 = 10$ _____

46. $3x - 7 = 2x + 12$ _____

47. $4x + 20 = 2x + 30$ _____

48. $x - 9 = 10$ _____

Choose the best meaning for each Life Principle.

49. *"A chain is as strong as its weakest link."*

(a) Any long chain usually will have a weak link.
(b) The weakest part or member of any item or project can cause a thing to fail.
(c) Selecting a chain with no weak links is in the best interest of the buyer.

50. *"You can easily calculate a person's responses when he is known for honesty."*

(a) An honest person can be counted on to perform with integrity in any situation.
(b) Honesty is an easy thing to calculate in a person's responses.
(c) The best calculation of a person's responses is his honesty.

51. *"Your speech and your actions speak volumes about your character."*

(a) Actions speak louder than words.
(b) Your character says a lot about your speech and actions.
(c) What you say and how you act tell people a great deal about your character.

52. *"The things with which you fill your life help determine who you are and what you will become."*

(a) Everything you allow in your life has a part in determining who and what you become.
(b) We can determine the things with which we fill our lives.
(c) The things with which we fill our lives should be good, not bad.

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