

The answers are located at the end of the test

Multiple Choice

Identify the letter of the choice that best completes the statement or answers the question.

- _____ 1. Which operation would be used to solve the following equation?

$$6d = 342$$

- a. add 6
 - b. subtract 6
 - c. multiply by 6
 - d. divide by 6
- _____ 2. In a store one CD costs \$22.00. What amount of sales tax must be paid if the sales tax rate is 5.5%?
- a. \$1.21
 - b. \$20.79
 - c. \$23.21
 - d. \$110.21
- _____ 3. Which is a value for x that makes the following true?

$$-3x = 21$$

- a. -63
 - b. -7
 - c. 7
 - d. 63
- _____ 4. Write a word phrase for the algebraic expression:

$$2x - 4$$

- a. two times a number is 4
 - b. two times a number increased by 4
 - c. two times a number decreased by 4
 - d. a number times 2 divided by 4
- _____ 5. Write an algebraic expression for the word phrase:

the sum of a number and 7, multiplied by four

- a. $4(x + 7)$
- b. $4(x \cdot 7)$
- c. $4(x - 7)$
- d. $4(x \div 7)$

_____ 6. Alex flipped a coin and got “heads” 7 out of 10 times. What is the probability that Alex will get a “tails” on his next flip?

- a. $\frac{3}{10}$
 b. $\frac{1}{2}$
 c. $\frac{7}{10}$
 d. 1

_____ 7. If x stands for a number, which best represents the statement below?

Three times the sum of a number and five

- a. $3x + 5$
 b. $3(x + 5)$
 c. $3x - 5$
 d. $3(x - 5)$

_____ 8. A multi-millionaire purchased a hotel in Florida for 36 million dollars. What is 36 million expressed in scientific notation?

- a. 3.6×10^6
 b. 3.6×10^7
 c. 3.6×10^8
 d. 3.6×10^9

_____ 9. Which is the solution to the inequality $-4x + -8$?

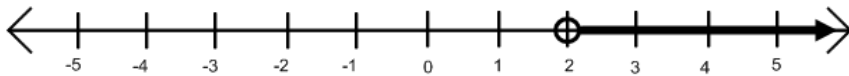
a.



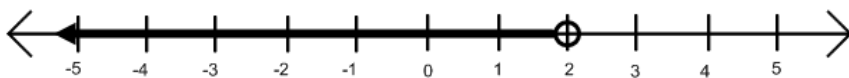
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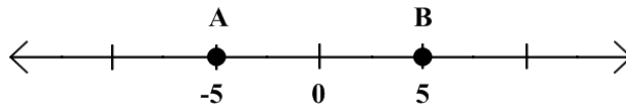
d.



_____ 10. There are five red chips, six white chips, three purple chips, and four yellow chips in a bag. What is the probability that the first chip randomly selected from the bag will be purple?

- a. $\frac{1}{6}$
- b. $\frac{5}{6}$
- c. $\frac{1}{3}$
- d. $\frac{2}{3}$

_____ 11. Eric is modeling addition and subtraction of integers on the number line.



If he begins at point A, what could he do to get to point B?

- a. add -10
- b. add 5
- c. subtract 5
- d. subtract -10

- _____ 12. The table shows several countries and the portion of their population that is under age 15.

Populations

Country	Portion of Population Under Age of 15
Chad	47.8%
United States	$\frac{1}{5}$
Uganda	$\frac{1}{2}$
Benin	$\frac{23}{50}$
Ethiopia	47.3%

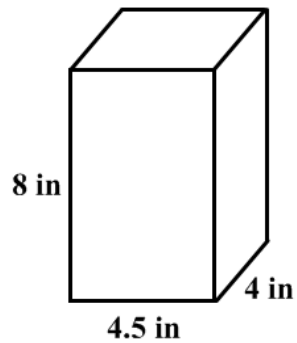
List the countries in order from least to greatest according to the portion of the population under age 15.

- United States, Ethiopia, Benin, Chad, Uganda
 - Uganda, United States, Benin, Ethiopia, Chad
 - United States, Benin, Ethiopia, Chad, Uganda
 - Uganda, Chad, Ethiopia, Benin, United States
- _____ 13. Bob has three different colored shirts, a red tie, a brown tie, one pair of black pants, one pair of brown pants, and one pair of blue pants. How many different combinations of a shirt, a tie, and a pair of pants can he make?
- 6
 - 8
 - 12
 - 18

Name: _____

ID: A

- _____ 14. Sara is going to make a doorstep for her mom by filling up a wooden box with sand and sealing it. How many cubic inches of sand are needed to completely fill the box?



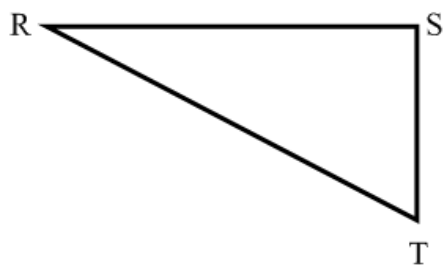
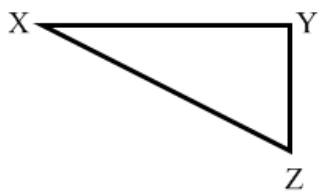
- a. 16.5 in^3
b. 128 in^3
c. 144 in^3
d. 172 in^3
- _____ 15. Which of the statements is true?

- a. $\frac{1}{2} > 55\%$
b. $0.66 < \frac{1}{3}$
c. $85\% > \frac{2}{3}$
d. $0.45 < 45\%$

Name: _____

ID: A

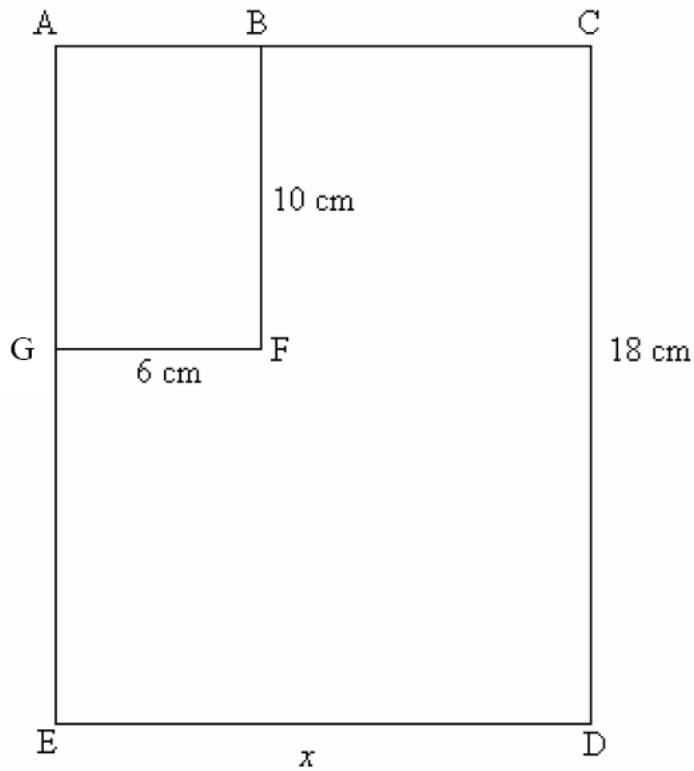
____ 16. Triangle XYZ is similar to triangle RST.



Which must be true?

- a. $\angle XZY \cong \angle RTS$
- b. $\angle XZY \cong \angle SRT$
- c. $\frac{YZ}{RS} = \frac{XY}{RT}$
- d. $\frac{XZ}{RS} = \frac{XY}{RT}$

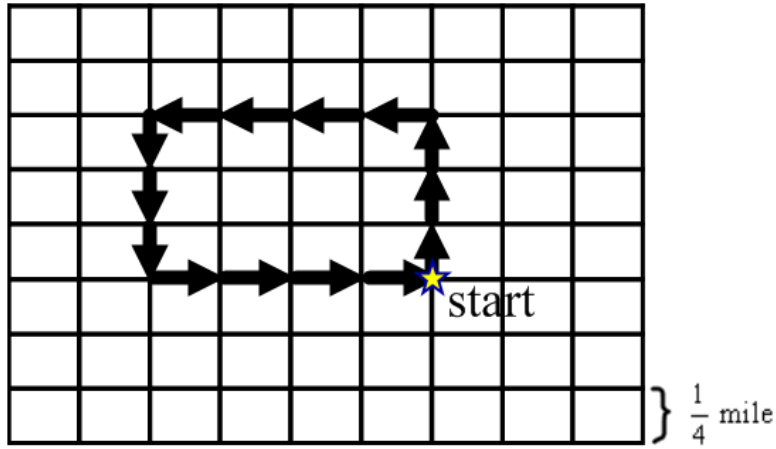
____ 17.



Rectangle ACDE is similar to rectangle ABFG. Which of the proportions is true?

- a. $\frac{6}{x} = \frac{10}{18}$
- b. $\frac{6}{18} = \frac{10}{x}$
- c. $\frac{6}{10} = \frac{18}{x}$
- d. $\frac{6}{x} = \frac{18}{10}$

- _____ 18. The map shows the route of a race. The length of each square is $\frac{1}{4}$ mile. What is the total distance of the race?



- a. 2.5 miles
 - b. 3.5 miles
 - c. 12 miles
 - d. 14 miles
- _____ 19. The table shows the recent populations for four Latin American countries.

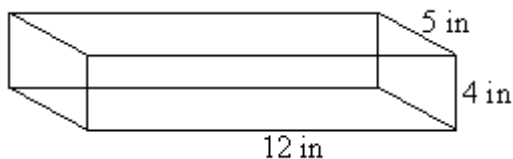
POPULATION CHART

Country	Population
Argentina	3.7×10^7
Brazil	1.7×10^7
Mexico	1.0×10^7
Paraguay	5.4×10^7

Which of the following lists the countries in order from greatest to least population?

- a. Brazil, Mexico, Argentina, Paraguay
- b. Mexico, Brazil, Argentina, Paraguay
- c. Paraguay, Argentina, Mexico, Brazil
- d. Paraguay, Argentina, Brazil, Mexico

- _____ 20. Susan wanted to cover her friend's birthday gift with wrapping paper.



Find the minimum amount of paper needed to cover the box.

- a. 108 in^2
b. 168 in^2
c. 240 in^2
d. 256 in^2
- _____ 21. Evaluate the following expression.

$$4(4 + 5)$$

- a. 80
b. 36
c. 32
d. 21
- _____ 22. The table represents a function.

x	y
1	5
2	7
3	9
4	11

Which equation describes the relationship between x and y ?

- a. $x + 4 = y$
b. $x + 3 = y$
c. $2x + 1 = y$
d. $2x + 3 = y$
- _____ 23. Douglas borrowed \$2,000 from the bank. The annual interest rate was 6.5%. If he planned to pay the money back in 1 year, how much interest would Doug owe the bank?
- a. \$130
b. \$390
c. \$1,610
d. \$2,390

- _____ 24. The table shows the closing prices of a share of stock over a five-day period.

Closing Stock Prices

Day	Price per Share (dollars)
Monday	10.23
Tuesday	8.16
Wednesday	10.23
Thursday	6.56
Friday	6.42

Which two measures of data are closest in value?

- a. Mode and median
 - b. Median and mean
 - c. Mean and mode
 - d. Mode and range
- _____ 25. Which number sentence illustrates the commutative property of multiplication?
- a. $14 + (13 \cdot 7) = 14 + (7 \cdot 13)$
 - b. $14 + (13 \cdot 7) = 13 + (14 \cdot 7)$
 - c. $14 + (13 \cdot 7) = 14 \cdot 13 + 14 \cdot 7$
 - d. $14 + (13 \cdot 7) = (14 + 13) \cdot 7$
- _____ 26. Which is an example of the Identity Property of Multiplication?
- a. $ab = ba$
 - b. $a + 0 = a$
 - c. $a(x + y) = ax + ay$
 - d. $a \cdot 1 = a$
- _____ 27. Which quadrant on the coordinate plane contains the ordered pair (3, -2)?
- a. Quadrant I
 - b. Quadrant II
 - c. Quadrant III
 - d. Quadrant IV
- _____ 28. Which number is equivalent to 0.4%?
- a. 40
 - b. 4
 - c. 0.04
 - d. 0.004

- _____ 29. The number of customers in various age groups that went to Oak Hills Library last Tuesday morning is recorded in the frequency distribution.

Oak Hills Library Customers

Age Group	Tally	Frequency	Cumulative Frequency
1 to 10	 	13	13
11 to 20	 	8	21
21 to 30	 	17	38
31 to 40	 	9	47
41 to 50	 	18	65

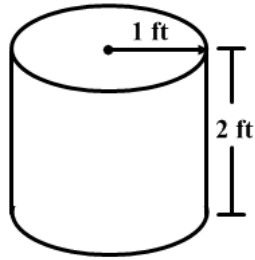
Which age group had twice as many customers as the 31- to 40-year-old age group?

- a. 1 to 10
b. 11 to 20
c. 21 to 30
d. 41 to 50
- _____ 30. John is fertilizing his lawn. The dimensions of his rectangular lawn are 150 feet by 200 feet. How much area will he need to fertilize?
- a. 350 ft^2
b. 700 ft^2
c. $15,000 \text{ ft}^2$
d. $30,000 \text{ ft}^2$
- _____ 31. Which list arranges the numbers from least to greatest?

$$5.0 \times 10^2, 50\%, \frac{2}{5}, 0.05$$

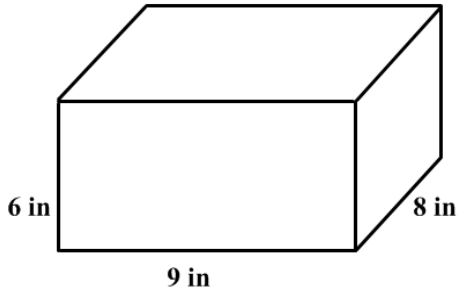
- a. $0.05, 50\%, \frac{2}{5}, 5.0 \times 10^2$
b. $0.05, \frac{2}{5}, 5.0 \times 10^2, 50\%$
c. $0.05, \frac{2}{5}, 50\%, 5.0 \times 10^2$
d. $50\%, \frac{2}{5}, 0.05, 5.0 \times 10^2$

- _____ 32. Mrs. Lin uses these cylindrical containers for storage.



If Mrs. Lin uses 2 of these containers, which is closest to the total volume of both containers?

- a. 16 cubic feet
 - b. 13 cubic feet
 - c. 8 cubic feet
 - d. 6 cubic feet
- _____ 33. Mark is wrapping a present.



What is the minimum amount of wrapping paper he will need?

- a. 174 sq in.
 - b. 348 sq in.
 - c. 432 sq in.
 - d. 864 sq in.
- _____ 34. What is the greatest number of right angles a trapezoid can have?
- a. 1
 - b. 2
 - c. 3
 - d. 4
- _____ 35. Which best describes the following?

$$3x - 4 = 8$$

- a. Constant
- b. Expression
- c. Equation
- d. Inequality

_____ 36. Which list arranges the numbers from greatest to least?

a. $5 \times 10^1, \frac{1}{5}, 5\%, 0.005$

b. $5 \times 10^1, \frac{1}{5}, 0.005, 5\%$

c. $5 \times 10^1, 5\%, \frac{1}{5}, 0.005$

d. $5 \times 10^1, 5\%, 0.005, \frac{1}{5}$

_____ 37. Which property is illustrated by

$$13(x + y) = 13(y + x)$$

- a. Commutative of Addition
- b. Associative of Addition
- c. Identity of Addition
- d. Distributive Property

_____ 38. Evaluate $-4 + 8(1 - 6)$

- a. -44
- b. -1
- c. 1
- d. 44

_____ 39.

$$\frac{3}{4} \cdot b = 1$$

If the number sentence above is true, then b is the —

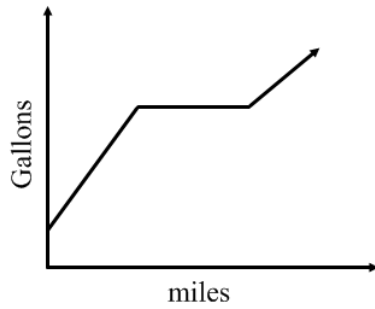
- a. additive identity
- b. additive inverse
- c. multiplicative identity
- d. multiplicative inverse

_____ 40. Which of the following would not be classified as an expression?

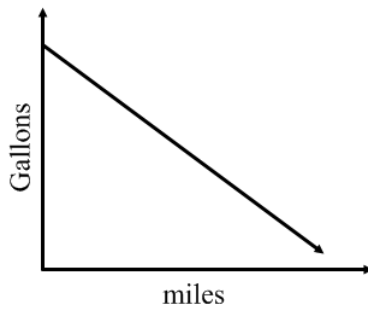
- a. x
- b. $4x$
- c. $4x - 8$
- d. $4x = 8$

41. A car has a full tank of gas before a trip. Which graph best represents the relationship between the number of gallons of gasoline in the car's tank and the number of miles driven?

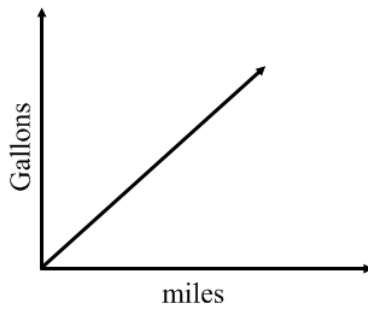
a.



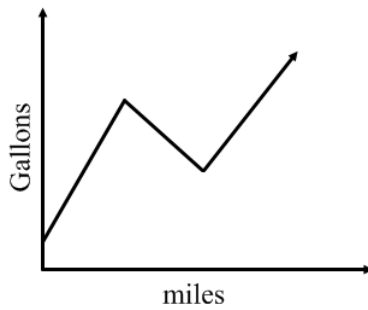
b.



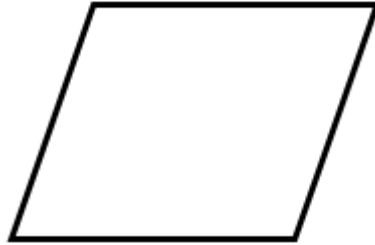
c.



d.



____ 42.



If all sides of the polygon pictured are equal in length, the polygon is most likely a —

- a. rhombus
- b. square
- c. rectangle
- d. nonagon

____ 43. Several stores are having sales. The prices are reduced by 62.5%, 75%, $\frac{1}{2}$, and $\frac{7}{10}$. Which list shows the price reductions from greatest to least?

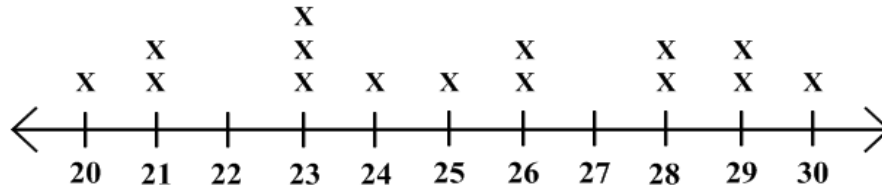
- a. 75%, 62.5%, $\frac{1}{2}$, $\frac{7}{10}$
- b. 62.5%, 75%, $\frac{7}{10}$, $\frac{1}{2}$
- c. 75%, $\frac{7}{10}$, 62.5%, $\frac{1}{2}$
- d. $\frac{7}{10}$, $\frac{1}{2}$, 75%, 62.5%

____ 44. What is the value of x for which the following is true?

$$4x = 90$$

- a. $\frac{9}{4}$
- b. $\frac{45}{2}$
- c. 86
- d. 360

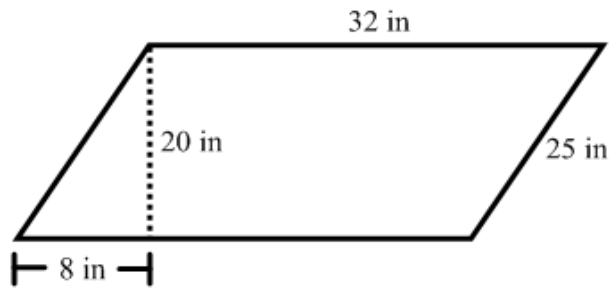
The line plot shows the number of raisins found in snack-sized boxes of raisins.



- _____ 45. If the next box has 31 raisins in it, which of the following statistics will not change?
- mean
 - median
 - mode
 - range
- _____ 46. If the median is used to predict how many raisins might be in the next box of raisins, how many raisins would be expected in the next box?
- 29 raisins
 - 27 raisins
 - 25 raisins
 - 23 raisins
- _____ 47. Which statement is false ?
- An equation must have an equal symbol.
 - An expression does not have an equal symbol
 - An equation does not have an equal symbol.
 - An equation states that two expressions are equal.
- _____ 48. Rico noticed that a nearby store was selling skateboards at 25% off. The original price of the skateboard he wanted was \$68. He bought the skateboard at the sale price. How much was his discount?
- \$17
 - \$25
 - \$43
 - \$51
- _____ 49. Which is an example of an expression?
- $2x - 1$
 - $2x = 1$
 - $2x - 1 > 4$
 - $2x - 2 \leq 4$

- _____ 50. List the polygons in order from least to greatest according to the number of sides.
- heptagon, nonagon, decagon, pentagon
 - nonagon, heptagon, decagon, pentagon
 - pentagon, nonagon, heptagon, decagon
 - pentagon, heptagon, nonagon, decagon
- _____ 51. Clay bought a \$45.00 fishing rod. If the sales tax was 6%, what amount of sales tax must be paid?
- \$2.70
 - \$27.00
 - \$47.70
 - \$51.00
- _____ 52. Which best describes the following?
- $$8x + 2x + 7$$
- Constant
 - Expression
 - Equation
 - Inequality
- _____ 53. A taxi driver charges \$4.00 for each trip and \$1.50 per mile. Let m represent the number of miles. Which expression shows the cost of a trip?
- $4m + 1.5$
 - $4m - 1.5$
 - $1.5m + 4$
 - $1.5m - 4$
- _____ 54. Which list arranges the numbers from least to greatest?
- $0.75, 8.1 \times 10^4, 81\%, \frac{4}{5}$
 - $8.1 \times 10^4, 81\%, \frac{4}{5}, 0.75$
 - $0.75, 81\%, \frac{4}{5}, 8.1 \times 10^4$
 - $0.75, \frac{4}{5}, 81\%, 8.1 \times 10^4$
- _____ 55. Mark deposited \$2,000 in his savings account. The account earns an annual interest rate of 4%. How much interest will Mark earn after his money has been in the account for one year?
- \$0.80
 - \$8.00
 - \$80
 - \$800

_____ 56. What is the area of the parallelogram shown?



- a. 85 square inches
b. 160 square inches
c. 500 square inches
d. 640 square inches
- _____ 57. A deli has a choice of 3 breads, 5 meats and 10 condiments. How many different ways can you make a sandwich with one kind of bread, one meat and one condiment?

- a. 18
b. 53
c. 80
d. 150

_____ 58. Which values for x make the following true?

$$x + 2 < -3$$

- a. $x > -5$
b. $x < -5$
c. $x > -6$
d. $x < -6$

_____ 59. Which is an inequality?

- a. $4x + 5y$
b. $x + y = 9$
c. $5x + 7 > -5$
d. $12x$

_____ 60. What is the surface area of a cylinder with a radius of 3.5 inches and a height of 12 inches?

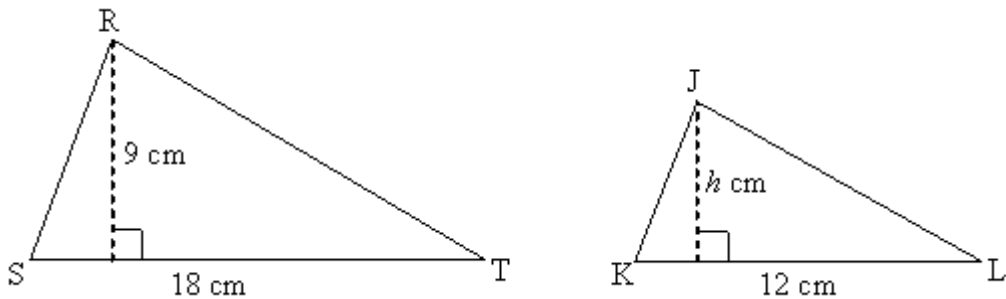
- a. 98.91 in^2
b. 329.7 in^2
c. 340.69 in^2
d. 835.25 in^2

_____ 61. Which is a value for p that makes the following true?

$$-6p \geq 48$$

- a. -8
- b. -7
- c. 7
- d. 8

_____ 62. ΔPQT ανδ ΔTHK αρε σιμιλαρ.

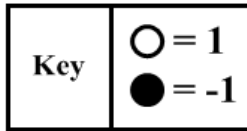


Ωηιχη προπορτιον χουλδ νοτ βε υσεδ το σολπε φορ τηε μισσινγ ηειγητ?

- a. $\frac{9}{18} = \frac{h}{12}$
- b. $\frac{9}{h} = \frac{18}{12}$
- c. $\frac{12}{18} = \frac{h}{9}$
- d. $\frac{12}{h} = \frac{9}{18}$

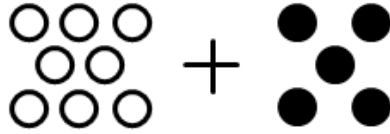
_____ 63. A jogger jogs $3\frac{1}{2}$ miles every day. How many does he jog in one week?

- a. $3\frac{1}{2}$ miles
- b. 7 miles
- c. $17\frac{1}{2}$ miles
- d. $24\frac{1}{2}$ miles



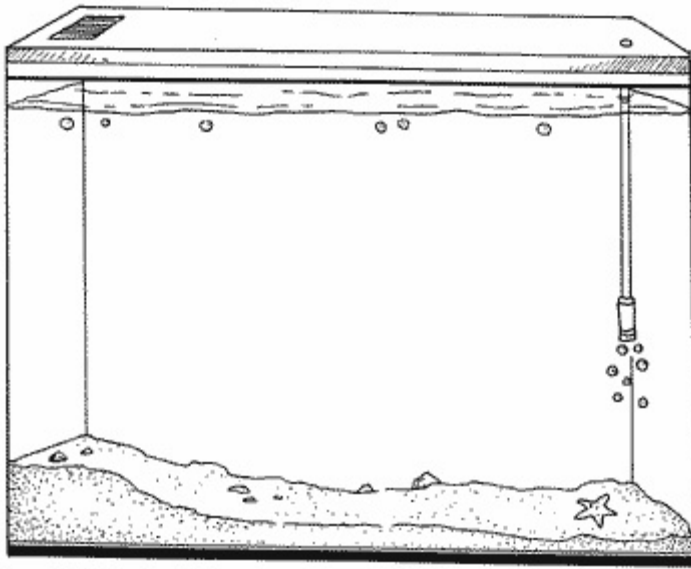
____ 64.

Using the key above as a guide, what is the result of the operation in the model below?



- a. -13
b. -3
c. 3
d. 13
- ____ 65. In 2002, the temperature on the first day of summer was 90° Fahrenheit. This is 8° Fahrenheit less than it was the previous year on the first day of summer. What was the temperature on the first day of summer in 2001?
- a. 108° F
b. 98° F
c. 97° F
d. 82° F
- ____ 66. Which quadrilateral is not a parallelogram?
- a. Rectangle
b. Rhombus
c. Square
d. Trapezoid

____ 67.



Bob bought a rectangular prism-shaped fish tank. The tank's length is 14 inches, the width is 10 inches, and the height is 16 inches. How many cubic inches of water will fill the tank.

- a. 40 in^3
- b. 80 in^3
- c. $1,048 \text{ in}^3$
- d. $2,240 \text{ in}^3$

____ 68. Which is a value for n that makes the following true?

$$-16 + n > 32$$

- a. -48
- b. -16
- c. 16
- d. 48

_____ 69. If n stands for a number, which best represents the following phrase?

The difference of a number and eight, divided by 10

- a. $n - \frac{8}{10}$
- b. $n + \frac{8}{10}$
- c. $\frac{8 - n}{10}$
- d. $\frac{n - 8}{10}$

_____ 70. What is the 6th term for the pattern below?

3, 7, 11, 15, ...

- a. 17
- b. 19
- c. 21
- d. 23

_____ 71. Megan is buying a new pair of jeans that cost \$35. The jeans are on sale for 20% off. What is the sale price of the jeans?

- a. \$7.00
- b. \$15.00
- c. \$28.00
- d. \$42.00

_____ 72. Which term best describes the quadrilateral?



- a. rectangle
- b. square
- c. rhombus
- d. parallelogram

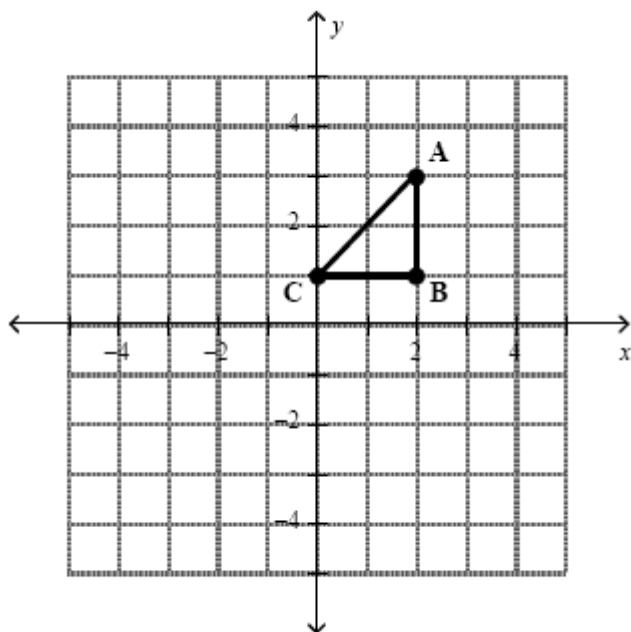
_____ 73. Bradley answered 80% of the questions on his science test correctly. There were 30 questions on the test, and all of the questions had equal value. How many questions did Bradley not answer correctly on his test?

- a. 6
- b. 18
- c. 22
- d. 24

Name: _____

ID: A

____ 74.

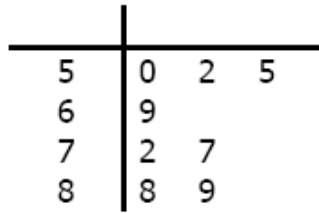


Find the coordinates of point B after a 180° rotation.

- a. $(-2, 1)$
- b. $(2, -1)$
- c. $(-2, -1)$
- d. $(2, 1)$

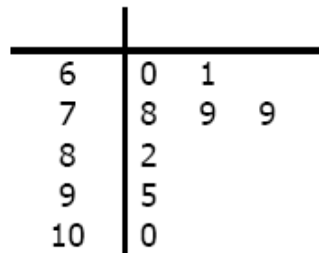
75. The stem and leaf plots show the number of boxes of girl scout cookies sold by each girl in four different troops. Which troop has a range of 39?

a.



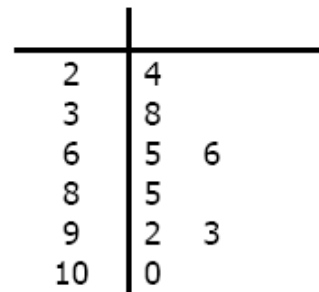
4|2 means 42

b.



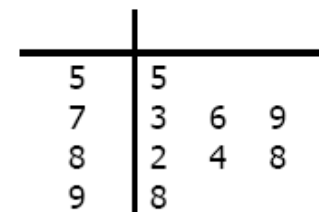
4|2 means 42

c.



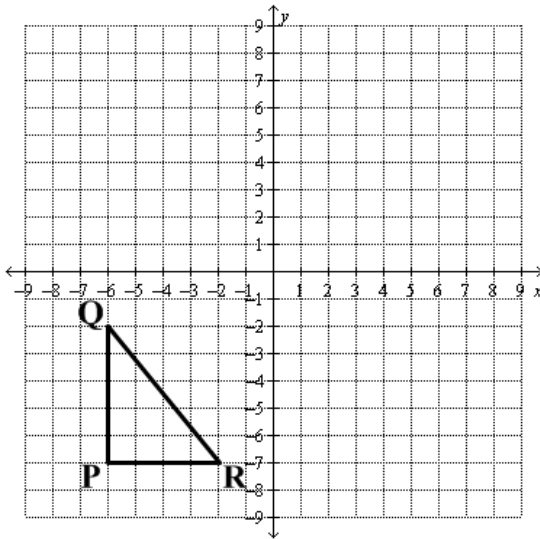
4|2 means 42

d.



4|2 means 42

- _____ 76. Which best describes a quadrilateral with exactly one pair of parallel sides?
- square
 - rhombus
 - rectangle
 - trapezoid
- _____ 77. If triangle PQR is translated 4 units horizontally and 10 units vertically to form triangle P'Q'R', what would be the coordinates of P' ?



- (-10, 3)
 - (4, 3)
 - (4, -3)
 - (-2, 3)
- _____ 78. Which quadrilaterals can have at least one obtuse angle?
- parallelogram, square, trapezoid
 - square, rhombus, rectangle
 - parallelogram, rhombus, trapezoid
 - rectangle, rhombus, parallelogram
- _____ 79. In a class, 17 out of 25 students are girls. What percent of the class is girls?
- 17%
 - 25%
 - 68%
 - 75%

_____ 80. What is the common difference of the arithmetic sequence shown below?

$$-7, -1, 5, 11, \dots$$

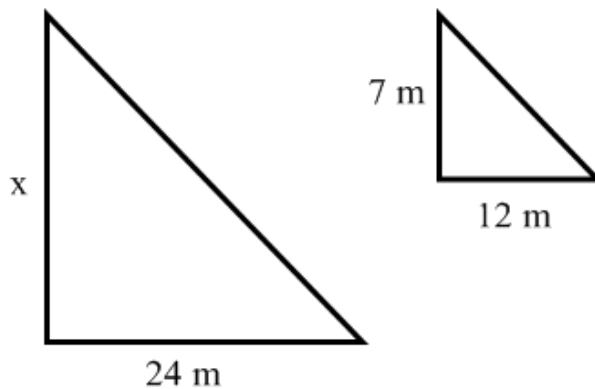
- a. 17
- b. 12
- c. 8
- d. 6

_____ 81. What value of n makes the sentence true?

$$\frac{n}{-6} = -2$$

- a. -12
- b. -3
- c. 3
- d. 12

_____ 82. The two triangles are similar. Solve for x .



- a. 10 m
- b. 12 m
- c. 14 m
- d. 20 m

_____ 83. A map has a scale of 2 inches = 10 miles. Two towns are $3\frac{1}{2}$ inches apart on the map. How many miles apart are the two towns?

- a. 12 miles
- b. 13.5 miles
- c. 15 miles
- d. 17.5 miles

- _____ 84. In one day, Lucy made cell phone calls that lasted 2 minutes, 3 minutes, 4 minutes, 4.5 minutes, 5 minutes, 5 minutes, 7 minutes, 8 minutes, 8.5 minutes and 10 minutes. What measure of central tendency has the greatest value?
- Mean
 - Median
 - Mode
 - Range

- _____ 85. Identify the equation.
- $3x + y - 2$
 - $11 = 6 + 5x$
 - $6x - m > 25$
 - $5(6p - 10)$

- _____ 86. Part of the statement is circled.

$$\textcircled{3x + 5} = 9$$

Which best describes the circled part of the statement?

- Coefficient
 - Variable
 - Term
 - Expression
- _____ 87. Find the value of x.
- $$-7x = 14$$
- 98
 - 2
 - 2
 - 98
- _____ 88. If the temperature during the night is -4° and the temperature rises 7° , what is the temperature now?
- 11°
 - 3°
 - -3°
 - -1°
- _____ 89. Martha is building a rectangular pen for her dog. She buys 26 feet of fencing. Which of the following could be the length and width of the pen?
- 2 ft by 10 ft
 - 4 ft by 9 ft
 - 6 ft by 8 ft
 - 8 ft by 7 ft

_____ 90. Which is not equivalent to -1?

- a. $-9 + 8$
- b. $-6 - 7$
- c. $-3 - (-2)$
- d. $-4 - (-3)$

_____ 91. Which list arranges the numbers from least to greatest?

$$15\%, 1.5 \times 10^2, \frac{1}{8}, 1$$

- a. $1.5 \times 10^2, 1, 15\%, \frac{1}{8}$
- b. $\frac{1}{8}, 15\%, 1, 1.5 \times 10^2$
- c. $1, 15\%, 1.5 \times 10^2, \frac{1}{8}$
- d. $15\%, \frac{1}{8}, 1, 1.5 \times 10^2$

_____ 92. How many more sides does a nonagon have than a heptagon?

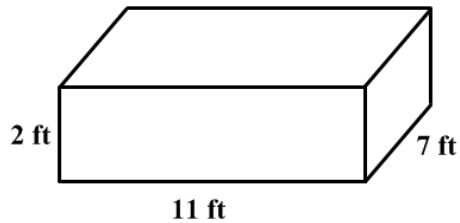
- a. 2
- b. 3
- c. 4
- d. 5

_____ 93. What property is shown?

$$3 + 4 = 4 + 3$$

- a. Associative Property
- b. Commutative Property
- c. Distributive Property
- d. Identity Property

____ 94. Bill wants to paint the outside of the box. How many square feet need to be painted?



- a. 20 ft^2
b. 113 ft^2
c. 154 ft^2
d. 226 ft^2
- ____ 95. Which of the statements is false ?

- a. All squares are rectangles.
b. All rectangles are squares.
c. All rectangles are parallelograms.
d. All trapezoids are quadrilaterals.

____ 96. This equation can best be represented by which situation?

$$x - 4 = 16?$$

- a. Miranda picked 16 apples and ate $\frac{1}{4}$ of them. What is x , the number of apples she had left?
- b. Felipe ran for 16 minutes and walked for 4 minutes. What is x , the difference between the time he spent running and the time he spent walking?
- c. Jordan spent \$4 of his allowance and had \$16 left. What is x , the total amount of Jordan's allowance?
- d. Cecelia hit 4 of the 16 balls pitched. What is x , the total number of balls Cecelia missed?

_____ 97. Which is true for all values in the table?

x	y
-3	-5
2	0
5	3

- a. $y = x - 2$
- b. $y = 2x$
- c. $y = x + 2$
- d. $y = 2x - 2$

_____ 98. Hans wants to buy carpet that will completely cover the floor of his room. He measured the room to be 12 feet by 15 feet. Which is the minimum amount of carpet that he needs to buy?

- a. 27 square feet
- b. 54 square feet
- c. 180 square feet
- d. 200 square feet

_____ 99. What is the name of a polygon that has six sides?

- a. heptagon
- b. hexagon
- c. nonagon
- d. octagon

_____ 100. Evaluate $2(4 + 7) - 8$

- a. -14
- b. 6
- c. 14
- d. 48

____ 101. Which table contains only values that make the following true?

$$y = 3x - 1$$

a.

x	y
-2	-7
1	0
3	4

b.

x	y
-1	-4
0	-1
3	5

c.

x	y
-4	-13
-1	-4
3	8

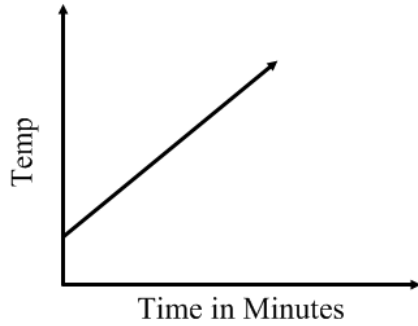
d.

x	y
-3	-8
0	-4
3	-1

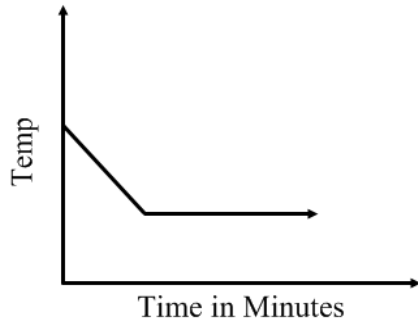
- _____ 102. Which is an example of an expression?
- two times a number is four
 - two times a number is seven
 - two times a number plus four
 - two times a number is greater than four
- _____ 103. The ratio of women to men in a local book club is 7 to 3. Which combination of women and men could the club have?
- 14 women and 9 men
 - 21 women and 9 men
 - 21 women and 15 men
 - 35 women and 50 men
- _____ 104. Which best represents the following?
- $$x - 5$$
- a number plus five
 - five minus a number
 - five less than a number
 - the product of a number and five
- _____ 105. Which statement is false?
- $\frac{-14}{-1} = 14$
 - $0 + (-14) = 0$
 - $-2 \cdot -1 = 2$
 - $-2 + 2 = 0$

106. An ice cold drink is left on a kitchen counter for twelve hours. Which graph best represents the relationship between elapsed time and the change in temperature of the drink?

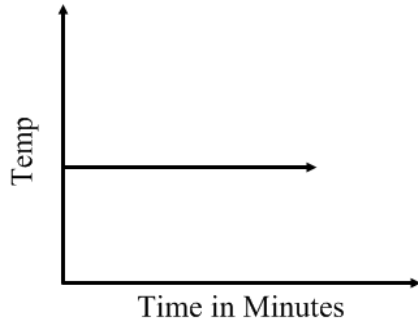
a.



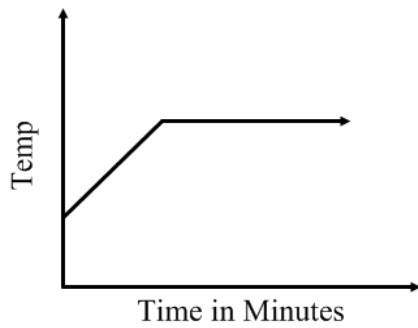
b.



c.



d.



_____ 107. Look at the table.

Hotdog Stand Sales

Day of the Week	# of Hotdogs Sold
Monday	78
Tuesday	98
Wednesday	69
Thursday	78
Friday	101
Saturday	121
Sunday	99

For the data listed, the value 98 represents the —

- a. mean
- b. median
- c. mode
- d. range

_____ 108. Which best describes —

$$5x + 6$$

- a. expression
- b. equation
- c. inequality
- d. coefficient

_____ 109. Which of the following would best describe a rhombus?

- a. a quadrilateral with all sides congruent and opposite angles congruent
- b. a quadrilateral with all sides congruent and 90° angles
- c. a quadrilateral with opposite sides congruent and opposite angles congruent
- d. a quadrilateral with opposite sides congruent and 90° angles

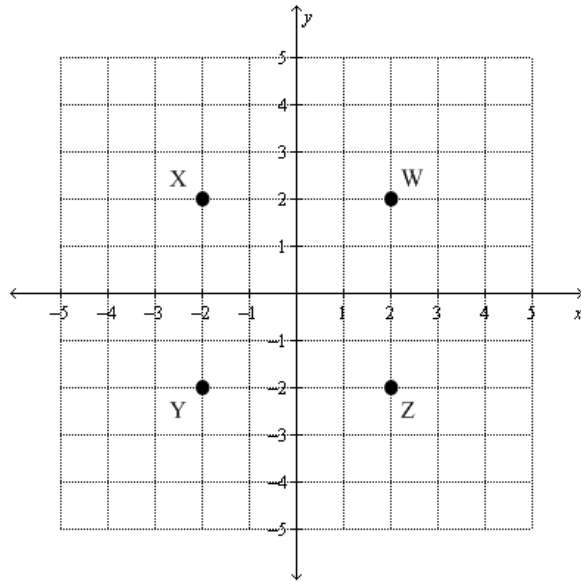
_____ 110. During a serious outbreak of the flu, 35% of the students were out ill. Which fraction is equal to 35%?

- a. $\frac{1}{3}$
- b. $\frac{7}{20}$
- c. $\frac{13}{20}$
- d. $\frac{14}{20}$

_____ 111. Where on the coordinate plane would the points $(3, 0)$ and $(-3, 0)$ be located?

- a. first quadrant
- b. second quadrant
- c. x-axis
- d. y-axis

_____ 112. Which point on the grid is in the second quadrant?



- a. point W
- b. point X
- c. point Y
- d. point Z

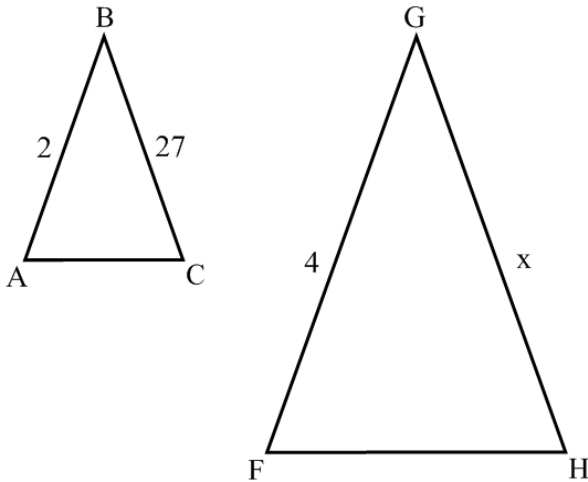
_____ 113. Amy has \$5,250 in her savings account. The account earns an annual interest rate of 10%. How much interest will Amy earn after her money has been in the account for one year?

- a. \$262.50
- b. \$525.00
- c. \$2625.00
- d. \$5775.00

____ 114. Carlos is 87.5% finished writing a term paper. What fraction represents the amount of work he has done?

- a. $\frac{5}{6}$
- b. $\frac{7}{8}$
- c. $\frac{9}{10}$
- d. $\frac{11}{12}$

____ 115. Triangle ABC and FGH are similar. Find the missing length.



- a. 64 cm
 - b. 54 cm
 - c. 42 cm
 - d. 32 cm
- ____ 116. What value of n makes the number sentence true?

$$3n = 54$$

- a. -162
- b. -18
- c. 18
- d. 162

____ 117.

12, 24, 14, 18, 22, 17, 20, 17

Which measure has the greatest value for the data listed?

- a. Mode
- b. Mean
- c. Range
- d. Median

____ 118. Which best represents the sentence?

“Twice the number of students in Juan’s class divided by five is ten.”

- a. $\frac{2j}{5} = 10$
- b. $\frac{j^2}{5} = 10$
- c. $\frac{2j}{5} + 10$
- d. $\frac{j^2}{5} + 10$

**The answers are located at the end of the test
Answer Section**

MULTIPLE CHOICE

1. ANS: D	DIF: Bloom's Level: Application	MSC: 4th set
2. ANS: A	DIF: Bloom's Level: Application	MSC: 4th set
3. ANS: B	DIF: Bloom's Level: Application	MSC: 4th set
4. ANS: C	DIF: Bloom's Level: Application	MSC: 4th set
5. ANS: A	DIF: Bloom's Level: Application	MSC: 4th set
6. ANS: B	DIF: Bloom's Level: Comprehension	MSC: 4th set
7. ANS: B	DIF: Bloom's Level: Application	MSC: 4th set
8. ANS: B	DIF: Bloom's Level: Comprehension	MSC: 4th set
9. ANS: B	DIF: Bloom's Level: Application	MSC: 4th set
10. ANS: A	DIF: Bloom's Level: Application	MSC: 4th set
11. ANS: D	DIF: Bloom's Level: Application	MSC: 4th set
12. ANS: C	DIF: Bloom's Level: Analysis	MSC: 4th set
13. ANS: D	DIF: Bloom's Level: Application	MSC: 4th set
14. ANS: C	DIF: Bloom's Level: Application	MSC: 4th set
15. ANS: C	DIF: Bloom's Level: Application	MSC: 4th set
16. ANS: A	DIF: Bloom's Level: Synthesis	MSC: 4th set
17. ANS: A	DIF: Bloom's Level: Application	MSC: 4th set
18. ANS: B	DIF: Bloom's Level: Application	MSC: 4th set
19. ANS: D	DIF: Bloom's Level: Knowledge	MSC: 4th set
20. ANS: D	DIF: Bloom's Level: Application	MSC: 4th set
21. ANS: B	DIF: Bloom's Level: Application	MSC: 4th set
22. ANS: D	DIF: Bloom's Level: Analysis	MSC: 4th set
23. ANS: A	DIF: Bloom's Level: Application	MSC: 4th set
24. ANS: B	DIF: Bloom's Level: Analysis	MSC: 4th set
25. ANS: A	DIF: Bloom's Level: Comprehension	MSC: 4th set
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27. ANS: D	DIF: Bloom's Level: Application	MSC: 4th set
28. ANS: D	DIF: Bloom's Level: Comprehension	MSC: 4th set
29. ANS: D	DIF: Bloom's Level: Application	MSC: 4th set
30. ANS: D	DIF: Bloom's Level: Comprehension	MSC: 4th set
31. ANS: C	DIF: Bloom's Level: Application	MSC: 4th set
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33. ANS: B	DIF: Bloom's Level: Application	MSC: 4th set
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35. ANS: C	DIF: Bloom's Level: Knowledge	MSC: 4th set
36. ANS: A	DIF: Bloom's Level: Application	MSC: 4th set
37. ANS: A	DIF: Bloom's Level: Comprehension	MSC: 4th set
38. ANS: A	DIF: Bloom's Level: Application	MSC: 4th set

39. ANS: D	DIF: Bloom's Level: Comprehension	MSC: 4th set
40. ANS: D	DIF: Bloom's Level: Comprehension	MSC: 4th set
41. ANS: B	DIF: Bloom's Level: Analysis	MSC: 4th set
42. ANS: A	DIF: Bloom's Level: Knowledge	MSC: 4th set
43. ANS: C	DIF: Bloom's Level: Application	MSC: 4th set
44. ANS: B	DIF: Bloom's Level: Application	MSC: 4th set
45. ANS: C	DIF: Bloom's Level: Analysis	MSC: 4th set
46. ANS: C	DIF: Bloom's Level: Application	MSC: 4th set
47. ANS: C	DIF: Bloom's Level: Analysis	MSC: 4th set
48. ANS: A	DIF: Bloom's Level: Application	MSC: 4th set
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55. ANS: C	DIF: Bloom's Level: Application	MSC: 4th set
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57. ANS: D	DIF: Bloom's Level: Application	MSC: 4th set
58. ANS: B	DIF: Bloom's Level: Application	MSC: 4th set
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62. ANS: D	DIF: Bloom's Level: Application	MSC: 4th set
63. ANS: D	DIF: Bloom's Level: Application	MSC: 4th set
64. ANS: C	DIF: Bloom's Level: Application	MSC: 4th set
65. ANS: B	DIF: Bloom's Level: Application	MSC: 4th set
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67. ANS: D	DIF: Bloom's Level: Application	MSC: 4th set
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70. ANS: D	DIF: Bloom's Level: Application	MSC: 4th set
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81. ANS: D	DIF: Bloom's Level: Application	MSC: 4th set

82. ANS: C	DIF: Bloom's Level: Application	MSC: 4th set
83. ANS: D	DIF: Bloom's Level: Application	MSC: 4th set
84. ANS: D	DIF: Bloom's Level: Analysis	MSC: 4th set
85. ANS: B	DIF: Bloom's Level: Knowledge	MSC: 4th set
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96. ANS: C	DIF: Bloom's Level: Analysis	MSC: 4th set
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