Student Name: _____

Class: _____

Date: _____

Instructions: **Read each question carefully and circle the correct answer.**

1.   Find the standard form for:

5^2

A.   7
B.   52
C.   10
D.   25

2.   Find the standard form for:

11^4

A.   1,331
B.   704
C.   14,641
D.   484

3.   Find the standard form for:

7.6×10^5

A.   76,000
B.   760,000
C.   7,600
D.   7,600,000

4.   The maximum speed of a Fly-By-Night airplane is 346 miles per hour faster than a Soaring-Wing airplane. The sum of their speeds is 889 miles per hour.

What is the maximum speed of a Fly-By-Night airplane?

A.   271.5 miles per hour
B.   617.5 miles per hour
C.   543 miles per hour
D.   1,235 miles per hour

5.   The range of Rita's paper airplane is 456 feet. This is 112 feet more than one-half the range of Fred's airplane.

What is the range of Fred's paper airplane?

A.   344 feet
B.   170 feet
C.   688 feet
D.   284 feet

6.   The length of Irma's bird is 36 inches longer than twice its wingspan. The length of the bird is 214 inches.

What is the wingspan of Irma's bird?

A.   107 inches
B.   356 inches
C.   178 inches
D.   89 inches

7.   Find the missing number.

5.6, 5.8, ?, 6.2, 6.4

A.   5.9
B.   6.1
C.   6.0
D.   6.2

8. Find the missing number.

97, 95, ?, 91, 89

    A.   94
    B.   100
    C.   93
    D.   92

9. Find the missing number.

195, 190, ?, 180, 175

    A.   185
    B.   184
    C.   186
    D.   183

10. What is the value of n in the given statement?

$5n \leq 425$

    A. $n < 85$

    B. $n \leq 85$

    C. $n > 85$

    D. $n \geq 85$

11. A school bus is designed with 24 seats along each side of it. Each seat is capable of holding up to 2 students on their way to school. Write an inequality that represents the number of students that can ride the bus at the same time. (Let x represent the number of students.)

    A. $0 \leq x \leq 48$

    B. $0 < x < 48$

    C. $0 \leq x \leq 96$

    D. $0 < x < 96$

12. What is the value of <u>n</u> in the given statement?

$8n < 40$

    A. $n < 5$

    B. $n \leq 5$

    C. $n > 4$

    D. $n \geq 4$

13. Ophelia went to the beach during the week. On Monday, she spent 5 hours at the beach. On Wednesday, she spent 4 hours shopping. On Friday, she spent 7 hours at the beach and on Sunday she spent 12 hours at the beach. How many more hours did she spend at the beach on Friday than Monday?

    A.   7 hours
    B.   5 hours
    C.   12 hours
    D.   2 hours

14. Jordan owns a grocery store. On Monday, he sold 18 pounds of hamburger. On Tuesday, he sold 4 pounds of tomatoes. On Thursday, he sold 6 packages of hamburger buns and 15 pounds of hamburger. How many pounds of hamburger did Jordan sell?

    A. 15 pounds
    B. 33 pounds
    C. 39 pounds
    D. 43 pounds

15. Dakota had a bookstore. On Monday, she sold 7 books. On Tuesday, she sold 5 books and 2 magazines. On Friday, she sold 8 books and 2 candles. How many books did Dakota sell in the week?

    A. 24 books
    B. 8 books
    C. 20 books
    D. 12 books

16. At the Wacky Waldo Toy Store, puzzles cost $7.89, magic cards cost $0.99, coloring books cost $1.34, and crayons cost $3.27. Margie bought 1 puzzle, 3 coloring books, and 6 crayons. How much money did Margie spend?

    A. $30.48
    B. $13.49
    C. $31.53
    D. $125.00

17. Arthur is 1/2 the age of Matt. Matt is 5 years older than John. John is 25. How many years older is John than Arthur?

    A. 20 years
    B. 10 years
    C. 15 years
    D. 5 years

18. At the Golden Burger Restaurant, a burger costs $3.23, fries cost $1.41, and onion rings cost $2.66. Charlene bought 3 burgers, 4 fries, and 7 onion rings. How much did Charlene spend?

    A. $102.20
    B. $10.22
    C. $9.69
    D. $33.95

19. What is the value of the given statement?

$$\frac{2}{3} \times \left(\frac{4}{5} \times \frac{35}{12} \right) = ?$$

    A.   1 5/9
    B.   4 2/3
    C.   2
    D.   14

20. What is the value of the given statement?

$$\frac{1}{3} \times 5 \times \frac{4}{7} \times \frac{29}{40} = ?$$

    A.   29/1050
    B.   56/84
    C.   29/210
    D.   29/42

21. What is the value of the given statement?

$$15 \times \left(\frac{2}{5} \times \frac{7}{8} \right) = ?$$

Round your answer to the nearest hundredth.

    A.   5.25
    B.   15.38
    C.   19.22
    D.   5.1

22. Round to the nearest cent when necessary.

A half a dozen doughnuts cost $3.49.

How much does one doughnut cost?

    A. $0.29
    B. $0.50
    C. $1.75
    D. $0.58

23. Round to the nearest cent when necessary.

At a store you can buy a dozen pieces of chocolate candy for $1.20.

How much does one piece of candy cost?

A. $0.11
B. $0.10
C. $0.18
D. $0.12

24. Round to the nearest cent when necessary.

Which of the following is the best price?

A. 12 for $7.00
B. 8 for $6.10
C. 10 for $6.44
D. 5 for $3.25

25. Find the value of x in the following proportion.

$$\frac{12}{30} = \frac{2}{x}$$

A. 60
B. 5
C. 24
D. 3

26. What is the ratio of one side to the perimeter?

13 m

13 m
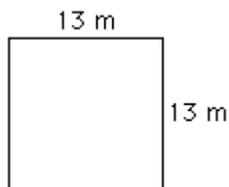
A. 13:52 m
B. 52:13 m
C. 1:52 m
D. 1:13 m

27. What is the ratio of the height to the base?
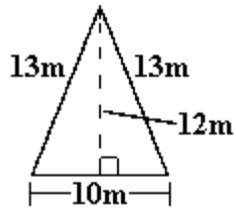
- **A.** 12:13 m
- **B.** 12:10 m
- **C.** 13:10 m
- **D.** 10:36 m

**28.** Use the bar graph to answer the question.
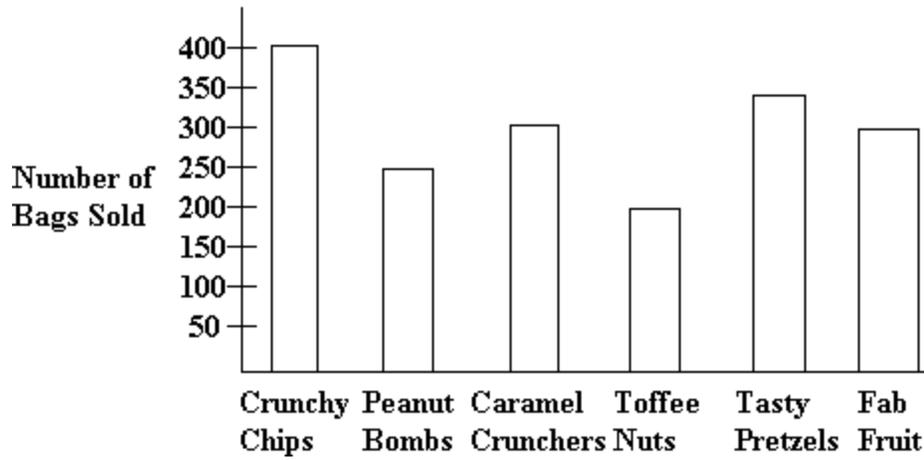
Which snack sold the most?

- **A.** Caramel Crunchers
- **B.** Fab Fruits
- **C.** Tasty Pretzels
- **D.** Crunchy Chips

29. The students of Hidden Valley Middle School are collecting aluminum cans to raise money for a new cafeteria. Use the graph to answer the question.
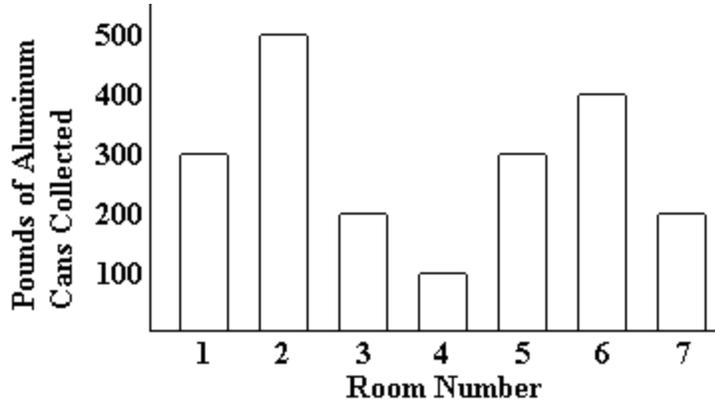
How many pounds of aluminum cans have been collected?

A. 2,100 pounds
B. 1,800 pounds
C. 2,000 pounds
D. 1,900 pounds

30. The students of Hidden Valley Middle School are collecting aluminum cans to raise money for a new cafeteria. Use the graph to answer the question.
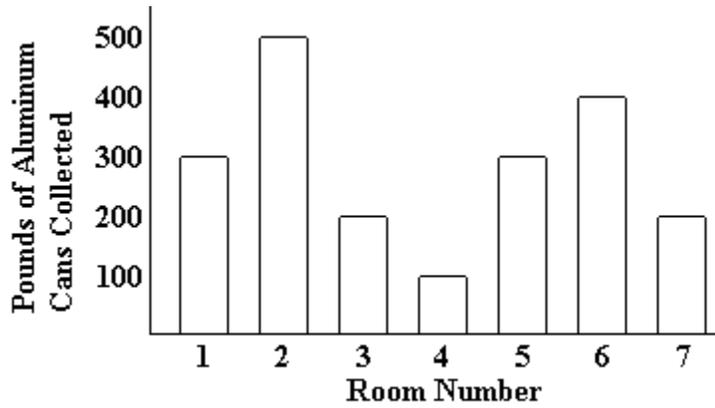
How many more cans has room 2 collected than rooms 3 and 4?

A. 100 pounds
B. 200 pounds
C. 300 pounds
D. 400 pounds

31. To answer the question, please refer to the spinner.
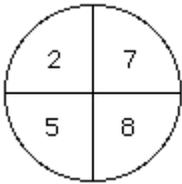
What is the probability of spinning an odd or even number?

A. 1/2
B. 2
C. 2/4
D. 1

32. To answer the question, please refer to the spinner.
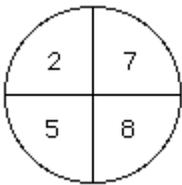
What is the probability of spinning an odd number?

A. 2
B. 3/4
C. 2/4
D. 4

33. To answer the question, please refer to the cards.
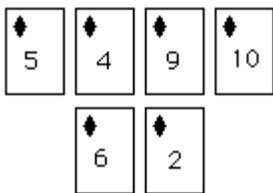
If you were to draw a card (without peeking), what is the probability of getting an even number?

A. 1/3
B. 6/4
C. 2/3
D. 2

34. A girls' club held bake sales from January to May. They charted how many of each item the group sold at the bake sales. Use the table to answer the question.

	Jan	Feb	Mar	Apr	May
Brownies	15	32	40	28	34
Cookies	30	19	33	31	36
Cake	40	12	29	16	22
Doughnuts	36	37	39	28	39

In January, how many more cakes did they sell than brownies?

A.   55 more cakes
B.   10 more cakes
C.   8 more cakes
D.   25 more cakes

35. Four classes at Junction Elementary School participated in the student council election. Use the chart to answer the question.

Election Results

	A	B	C	D
Megan	12	15	10	16
Roger	15	18	17	11
Terry	13	7	13	13

How many students in Class B voted for Terry?

A.   7 students
B.   13 students
C.   18 students
D.   15 students

36. Students from the fourth through eighth grades were asked to vote on their favorite foods. Use the chart to answer the question.

	4	5	6	7	8
Pizza	XX	XXXX	X	XX	XXX
Hot Dogs	XXXX	X	XXX	X	XX
Burgers	X	XX	XXX	XXX	XXX
Tacos	XXX	XXX	XXX	XXXX	XX

Grades
Each X means one vote.

How many votes did pizza get from the sixth grade and the eighth grade?

A. three votes
B. one vote
C. two votes
D. four votes

37. Every Saturday Owen bikes 33.8 miles and runs 4.5 miles. Every Sunday Frank bikes 25.7 miles and runs 6.8 miles. Every Saturday Celia bikes 22.9 miles and every Sunday she runs 9 miles.

Last month there were 4 Saturdays and 5 Sundays. Who completed the greatest number of miles last month?

A. Owen
B. Frank
C. Celia
D. They all biked and ran the same number of miles.

38. Arianna's father gave her $200. She spent $15.50 on gas for her car and $4.25 for lunch. With the remaining money Arianna needs to buy a gift for each of her 5 brothers.

How much money can Arianna spend on each gift?

A. $43.95
B. $180.25
C. $36.05
D. $1081.5

39. Puppy mix costs $3.98 a pound. Cockatiel food costs $2.98 a pound. Dog bones cost $0.78 a pound. Dog collars are 2 for $1.00.

Chandler bought 4.5 pounds of puppy mix, 3.5 pounds of cockatiel food, 12.75 pounds of dog bones and 1 dog collar.

How much money did Chandler spend?

    A. $38.09
    B. $28.74
    C. $38.79
    D. $39.59

40. What type of angle is shown below?
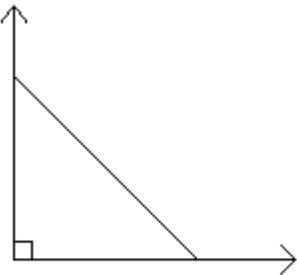

    A.   acute angle
    B.   right angle
    C.   isosceles angle
    D.   obtuse angle

41. Identify the angle.
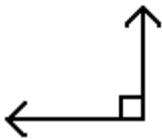
    A.   obtuse angle
    B.   acute angle
    C.   right angle

42. Which angles are obtuse?
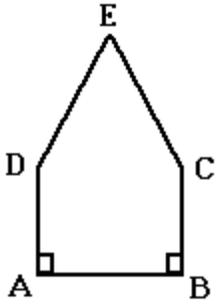
    A. $\angle$ADE and $\angle$BCE

    B. $\angle$DEC and $\angle$BCE

    C. $\angle$ABC and $\angle$ADE

    D. $\angle$EDA and $\angle$DAB

43. Fill in the blank.
Quadrilaterals ABCD and WXYZ are congruent.
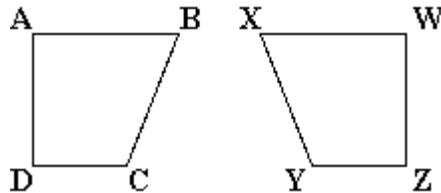

Segment AB is congruent to segment _____.

    A.   CD

    B.   AC

    C.   YZ

    D.   WX

44. Triangle ABC is congruent to triangle DEF.
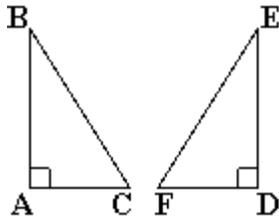
Segment AC is congruent to segment _____.

A. DE
B. DF
C. EF
D. BC

45. Figures ABCD and PQRS are congruent.
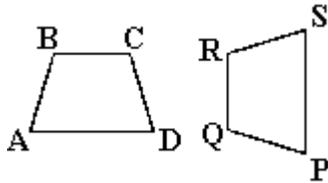
Segment AB is congruent to segment _____.

A. PS
B. RS
C. PQ
D. QR

46. What is the name of this shape?
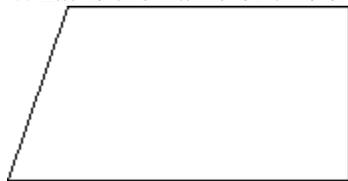
A. trapezoid
B. parallelogram
C. sphere
D. rectangle

47. Fill in the blank.

A trapezoid is a quadrilateral that _____.

    A. has all sides the same length
    B. has all right angles
    C. has two pairs of sides the same length
   **D.** has exactly one pair of parallel sides

48. What is this shape?
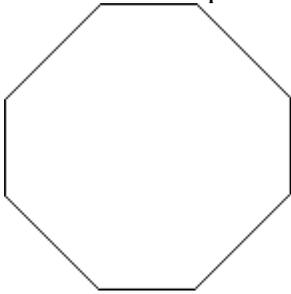
    A. pentagon
    B. sphere
    C. octagon
    D. hexagon

49. What does segment X represent?
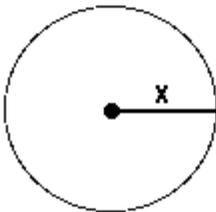
    A. diameter
    B. radius
    C. ray
    D. circumference

50. Which line segment is 16 units long?
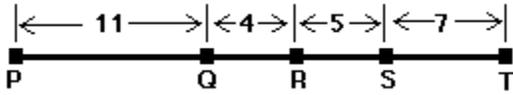
A. $\overline{PS}$
B. $\overline{QS}$
C. $\overline{PR}$
D. $\overline{QT}$

51. Which line segment is 15 units long?
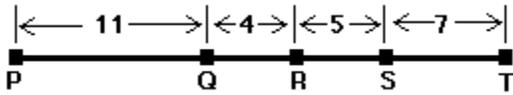
A. $\overline{PR}$
B. $\overline{PQ}$
C. $\overline{QT}$
D. $\overline{RT}$

52. In the marathon, Elijah, Adrian, Briana, and Sophia finished in the top four. Sophia came in first place. Elijah came in third place. Briana came in before Adrian.

Who came in fourth place?

A. Elijah
B. Adrian
C. Briana
D. Sophia

53. In the cross country bike race, Steve, Marc, Joy and Peggy finished in the top four. Steve finished second. Joy did not finish fourth. Marc finish third.

Which person finished first?

A. Steve
B. Marc
C. Joy
D. Peggy

54. Leo, Cynthia, Craig, and Megan drew different figures for math class: a square, a circle, a triangle, and a rectangle. Craig's figure had four even sides. Leo's figure had a radius equal to 6. Cynthia's figure had three sides.

Which person drew the triangle?

    A.   Leo
    B.   Cynthia
    C.   Craig
    D.   Megan

55. Which choice best completes the statement?
A hexagon is...

    A.   a polygon with four sides.
    B.   a polygon with six sides.
    C.   a polygon with eight sides.
    D.   a polygon with ten sides.

**56.** Name the polygon.
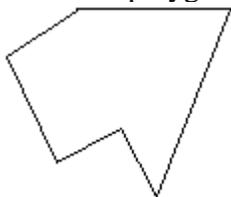
    A.   hexagon
    B.   decagon
    C.   pentagon
    D.   octagon

57. Name the polygon.
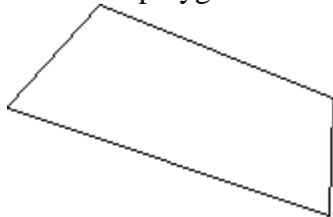

    A.   parallelogram
    B.   rhombus
    C.   quadrilateral
   **D.**   rectangle

58. These two triangles are similar. What is the value of X?
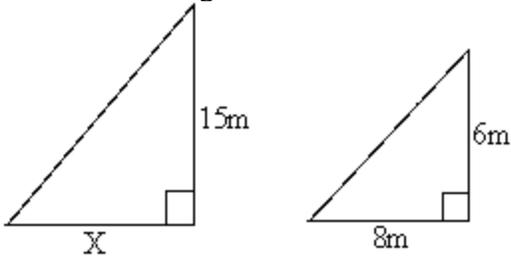
- **A.** 1 m
- **B.** 3.2 m
- **C.** 11.25 m
- **D.** 20 m

**59.** These two figures are similar. What is the value of x?

18cm

9cm

x   6cm
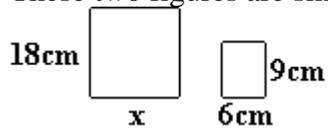
- **A.** 12 cm
- **B.** 27 cm
- **C.** 6.75 cm
- **D.** 3 m

60. The following triangles are similar. What is the value of Y?
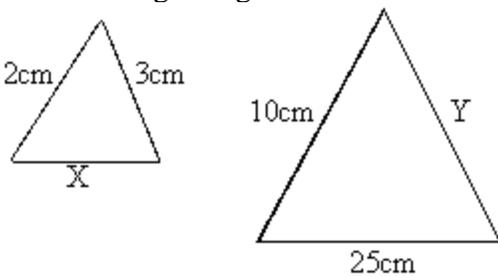


- **A.** 15 m
- **B.** 25 m
- **C.** 6.7 m
- **D.** 0.6 m

61. Which transformation was performed on the following figure?
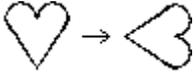
    A. Rotation
    B. Reflection
    C. Translation
    D. Dilation

62. Which transformation was performed on the following figure?

    A. Rotation
    B. Reflection
    C. Translation
    D. Dilation

63. The equations of a translation are x' = 2 - x and y' = y - 3. What is the translation of point K (-3, -1)?

    A. (5, -2)
    B. (-1, -4)
    C. (-1, -2)
    D. (5, -4)

64. Choose the option that lists all of the lines of symmetry that are shown for the following figure.
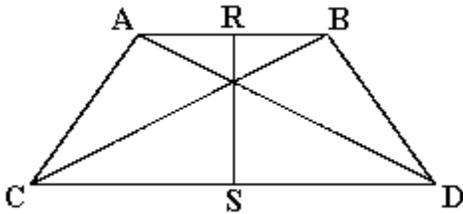
    A. AD, BC
    B. RS
    C. AD, BC, RS
    D. BC, RS

65. Choose the option that lists all of the lines of symmetry that are shown for the following figure.
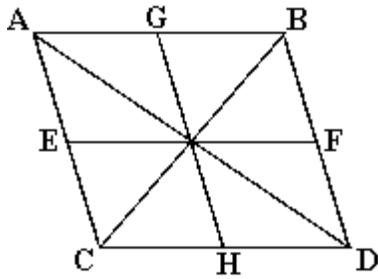
    A.   AD, BC
    B.   EF, GH
    C.   AD, BC, EF, GH
    D.   There are no lines of symmetry.

66. Choose the option that lists all of the lines of symmetry that are shown for the following figure.
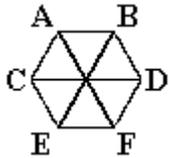
    A.   AF, BE
    B.   CD, AF, AC
    C.   BE, CD
    D.   AF, CD, BE

67. Choose the measurement that is the most precise.

    A.   350 cm
    B.   3,575 mm
    C.   3 m
    D.   They are all of equal precision.

68. Choose the measurement that is the most precise.

    A.   13 centimeters
    B.   0.3 meters
    C.   132 mm
    D.   They are all of equal precision.

69. Choose the measurement that is the most precise.

    A.   546 cm
    B.   546.0 cm
    C.   5.463 m
    D.   They are all of equal precision.

70. What is the <u>area</u> of this figure?

32.3 ft

11.2 ft
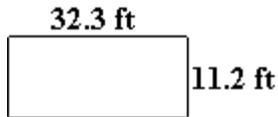
    A.   361.76 square feet
    B.   43.5 square feet
    C.   371.84 square feet
    D.   87 square feet

71. What is the <u>area</u> of the figure?

100 m

30 m

    A.   260 square meters
    B.   1,500 square meters
    C.   3,000 square meters
    D.   3.33 square meters

72. Find the area:

53.24 mm

55 mm
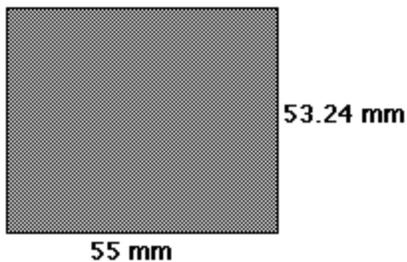
    A.   108.24 square millimeters
    B.   1,464.1 square millimeters
    C.   2,928.2 square millimeters
    D.   216.48 square millimeters

73. Solve:

23 L = ? mL

```
Hint:
     1 kiloliter (kL) = 1,000 liters (L)
     1 liter (L) = 1,000 milliliters (mL)
```

A.   0.023
B.   23,000
C.   2,300
D.   0.23

74. Solve:

? L = 11,000 mL

```
Hint:
     1 kiloliter (kL) = 1,000 liters (L)
     1 liter (L) = 1,000 milliliters (mL)
```

A.   11
**B.**   0.11
C.   1,100
D.   111

75. How many liters are equal to 611 milliliters?

A.   61.1 liters
B.   611 liters
C.   0.611 liters
D.   6.11 liters

76. What is the perimeter of a triangle with each side equal to 84 inches?

A.   336 inches
B.   126 inches
C.   252 inches
D.   168 inches

77. What is the perimeter of the figure?

16.4 m   5 m
51.5 m
14.9 m
32.8 m
15.2 m
52.1 m
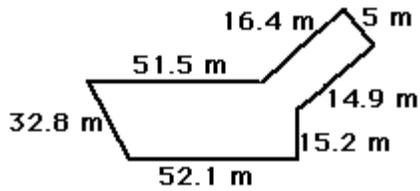
A. 187.9 m
B. 82.95 m
C. 93.95 m
D. 165.9 m

78. Sunjung and Dave built a square sandbox for the neighborhood kids. One side of the sandbox is 15 feet long.

What is the perimeter of the sandbox?

A. 60 feet
B. 225 feet
C. 120 feet
D. 45 feet

79. This is a scale drawing of Lincoln Junior High School.

History Class   Biology Class
Width
Library
Math Class   Rest rooms   English Class
Length
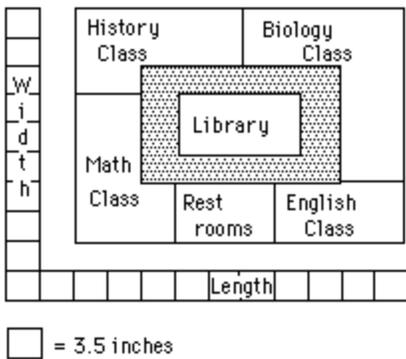
☐ = 3.5 inches

The scale used is 3.5 inches equals 7 feet. What is the actual width of the restrooms?

A. 49 feet
B. 24.5 feet
C. 21 feet
D. 14 feet

80. This is a scale drawing of Lincoln Junior High School.
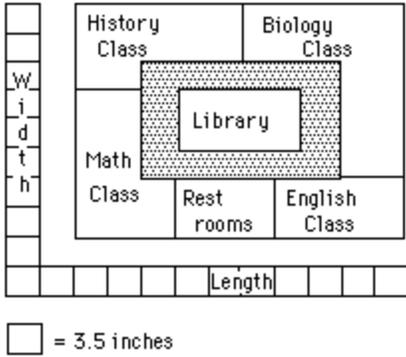


The scale used is 3.5 inches equals 7 feet. What is the actual perimeter of the history class?

A.   196 feet
B.   56 feet
C.   112 feet
D.   392 feet

81. This is the layout of the McDougal's backyard. The scale is 1 centimeter to 5 meters. The actual area of the deck is 350 square meters. The length of the deck is 35 meters.
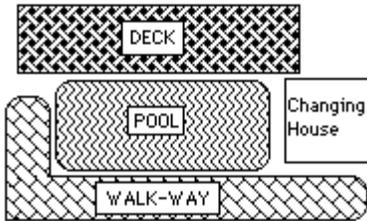
What is the area of the deck on the layout?

A.   14 square centimeters
B.   87.5 square centimeters
C.   17.5 square centimeters
D.   70 square centimeters

82. Solve:

     ? cm = 3 dam

Hint:
     1 kilometer (km) = 1,000 meters (m)
     1 hectometer (hm) = 100 meters
     1 dekameter (dam) = 10 meters
     1 meter = 10 decimeters (dm)
     1 meter = 100 centimeters (cm)
     1 meter = 1,000 millimeters (mm)

    A.   3,000
    B.   30,000
    C.   300,000
    D.   0.0003

83. Solve:

     6.2 cm = ? mm

Hint:
     1 meter = 10 decimeters (dm)
     1 meter = 100 centimeters (cm)
     1 meter = 1,000 millimeters (mm)

    A.   6,200
    B.   0.62
    C.   6.2
    D.   62

84. Solve:

     3.75 m = ? mm

Hint:
     1 meter = 10 decimeters (dm)
     1 meter = 100 centimeters (cm)
     1 meter = 1,000 millimeters (mm)

    A.   0.0375
    B.   375
    C.   37.50
    D.   3,750

85. What is the volume of a block that is 5 meters long, 3 meters wide, and 2 meters high?

    A. 30 cubic meters
    B. 15 cubic meters
    C. 10 cubic meters
    D. 20 cubic meters

86. Find the volume of the block.

13.2m

2.2m

9m
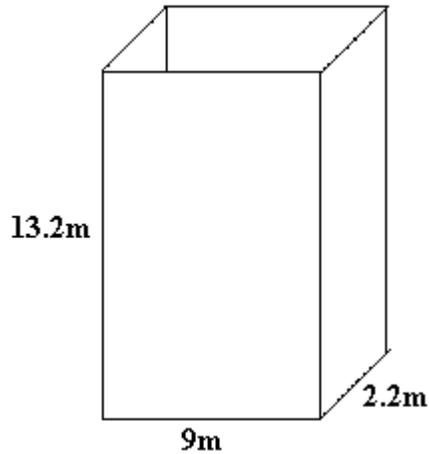
    A. 73.2 cubic meters
    B. 356.4 cubic meters
    C. 261.36 cubic meters
    D. 243.54 cubic meters

87. Find the volume to the block.

20 cm

2 cm

13 cm
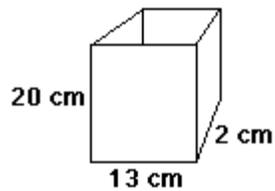
    A. 35 cubic centimeters
    B. 520 cubic centimeters
    C. 304 cubic centimeters
    D. 262 cubic centimeters

88.   Which of the following numbers is greater than the others?

    A.   1/2
    B.   100%
    C.   3/4
    D.   0.9

89.   Which of the following could be the value of y?

$-123 < y < 8$

    A.   -134
    B.   -125
    C.   -85
    D.   123

90.   Which of the following could be the value of y?

```
      6.25 = y
```

    A.   6.25%
    B.   62.5%
    C.   625%
    D.   0.0625%

91.   What is the value of X?

```
   3
  -- = 12% = X
  25
```

    A.   8.33
    B.   1.2
    C.   3.25
    D.   0.12

92.   Which of the following is another way to write 70%?

    A.   7/100
    B.   7/10
    C.   0.07
    D.   7.0

93. What is the value of X?

```
        269
2.69 = --- = X
        100
```

    A.   269%
    B.   2.69%
    C.   26.9%
    D.   0.269%

94. Subtract 10 from point X.
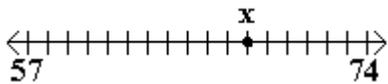
    A.   68
    B.   58
    C.   57
    D.   59

95. What is the difference between point A and point B?
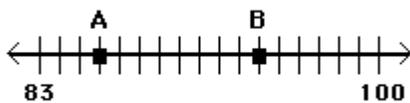
    A.   8
    B.   86
    C.   100
    D.   7

96. What is the difference between point D and point B?
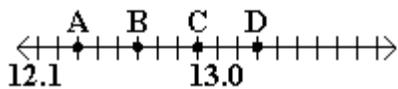
    A.   6
    B.   0.5
    C.   0.6
    D.   5

97. Which of the following formulas should you use to estimate 6,349 x 2,934?

    A.   7,000 x 2,000
    B.   7,000 x 3,000
    C.   6,000 x 2,000
    D.   6,000 x 3,000

98. Which of the following formulas should you use to estimate 6.1 x 4.8?

    A.   60 x 40
    B.   6 x 5
    C.   7 x 4
    D.   6 x 4

99. What is 1,009.65 rounded to the nearest whole number?

    A.   1,009.7
    B.   1,010.7
    C.   1,010
    D.   1,009

100. The average page of text contains 25 lines, and the average line contains 13 words. If Lynn reads a page in 5 minutes, how many words is she reading? Choose the best answer.

    A.   about 1 word per second
    B.   65 words per minute
    C.   3,900 words per hours
    D.   23,400 words in 1/4 of a day

101. Choose the option that best describes a square.

    A.   A figure with four sides
    B.   A figure with four sides that are equal in length
    C.   A figure with four angles
    D.   A figure with 2 sets of equal sides

102. Amaya is the entertainment writer for the school paper. She is allowed to use 2 pages for her articles. There are 30 lines of type on each page. The sports section is 3 pages long. The average line contains 15 words. How many words are there in Amaya's entertainment section?

    A.   120 words
    B.   900 words
    C.   1350 words
    D.   150 words

103. Which of the following is a prime number?

    A.   9
    B.   13
    C.   21
    D.   39

104. Which of the following numbers is divisible by 2 and 4?

    A.   14
    B.   24
    C.   25
    D.   43

105. Which of the following numbers is divisible by 5 and 8?

    A.   45
    B.   85
    C.   90
    D.   80

106. Find the expanded form: 19,000,090.

    A.   10,000 + 9,000 + 90
    B.   10,000,000 + 900,000 + 900
    C.   100,000 + 90,000 + 90
    D.   10,000,000 + 9,000,000 + 90

107. Find the expanded form: 9,508,000.

    A.   9,000 + 500 + 8
    B.   9,000,000 + 500,000 + 8,000
    C.   9,000,000 + 500,000 + 80,000
    D.   90,000,000 + 5,000,000 + 80,000

108. Find the expanded form: 10,120,321.

    A.   100,000,000 + 1,000,000 + 20,000 + 300 + 20 + 1
    B.   1,000,000 + 100,000 + 2,000 + 300 + 20 + 1
    C.   100,000,000 + 1,000,000 + 200,000 + 3,000 + 20 + 1
    D.   10,000,000 + 100,000 + 20,000 + 300 + 20 + 1

109. Eric is planning to fly to New Jersey. If he flies non-stop to New Jersey from San Diego, he will fly 2,786 miles. If he flies from San Francisco, he will fly 698 miles to Denver, 678 miles to Chicago and 965 miles to New Jersey.

Which route will be the longest for Eric to fly? By how many miles?

A.   the flight from San Francisco by 440 miles
B.   the non-stop flight from San Diego by 400 miles
C.   the non-stop flight from San Diego by 445 miles
D.   the flight from San Francisco by 445 miles

110. Margo had 524,002 pennies. Her brother, Stanley, gave her 784 more pennies. Margo spent 2,335 pennies on gum and candy.

How many pennies does she have left?

A.   522,451 pennies
B.   521,667 pennies
C.   527,121 pennies
D.   520,883 pennies

111. Stacy lives 856 miles north of Tasha. Stacy's grandmother lives 76 miles south of Stacy.

How many miles would Tasha have to drive to get from her house to Stacy's grandmother's house?

A.   780 miles
B.   932 miles
C.   76 miles
D.   436 miles