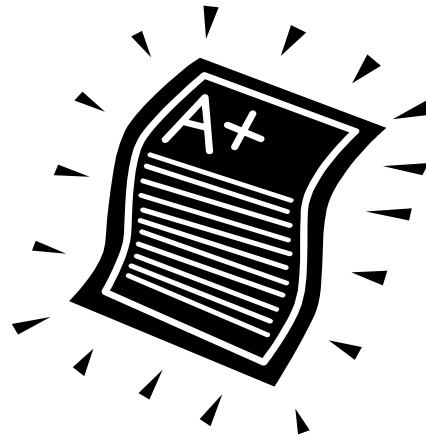


6th Grade Mathematics Assessment

Name: _____
Date: _____
School: _____
District: _____

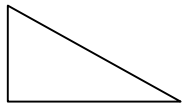


*Increasing Achievement for Schools,
Teachers, & Students*

Post Test

Mathematics Reference Sheet

Area



Triangle

$$A = \frac{1}{2}bh$$



Rectangle

$$A = lw$$



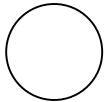
Trapezoid

$$A = \frac{1}{2}h(b_1 + b_2)$$



Parallelogram

$$A = bh$$



Circle

$$A = \pi r^2$$

Key

b = base

h = height

l = length

w = width

$S.A.$ = surface area

d = diameter

r = radius

A = area

C = circumference

V = volume

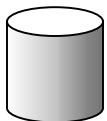
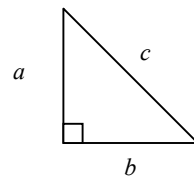
Use 3.14 or $\frac{22}{7}$ for π .

In a polygon, the sum of the measures of the interior angles is equal to $180(n - 2)$, where n represents the number of sides.

Circumference

$$C = \pi d = 2\pi r$$

Pythagorean Theorem $c^2 = a^2 + b^2$



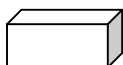
Right Circular Cylinder

Volume

$$V = \pi r^2 h$$

Total Surface Area

$$S.A. = 2\pi r h + 2\pi r^2$$



Rectangular Solid

$$V = lwh$$

$$S.A. = 2(lw) + 2(hw) + 2(lh)$$

Conversions

1 yard = 3 feet = 36 inches
1 mile = 1,760 yards = 5,280 feet
1 acre = 43,560 square feet
1 hour = 60 minutes
1 minute = 60 seconds

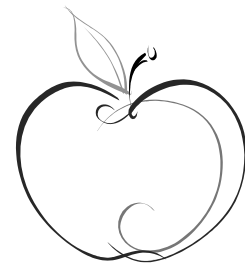
1 liter = 1000 milliliters = 1000 cubic centimeters
1 meter = 100 centimeters = 1000 millimeters
1 kilometer = 1000 meters
1 gram = 1000 milligrams
1 kilogram = 1000 grams

1 cup = 8 fluid ounces
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts

1 pound = 16 ounces
1 ton = 2,000 pounds

Begin with Question #45 on Your Answer Sheet for the Math Portion of the Assessment.

45. The record for the world's largest apple is 4 pounds and 3 ounces. The weight of an average apple is 6 ounces. About how many normal-sized apples would it take to weigh as much as the record-setting apple?
- A. 16 apples
 - B. 2 apples
 - C. 11 apples
 - D. 9 apples



46. Name the geometric figure described in the riddle: **I have three sides, and I have one 90° angle.**
- A. an isosceles triangle
 - B. a right triangle
 - C. a trapezoid
 - D. an equilateral triangle

47. Find the missing number below.

1, 1, 2, 3, 5, 8, ? , 21

- A. 11
- B. 13
- C. 15
- D. 17

48. Simplify: $\frac{3}{4} \times \left(\frac{5}{6} + \frac{2}{9} \right) \div \frac{19}{2}$

- A. $\frac{5}{12}$ B. $\frac{7}{36}$ C. $\frac{7}{20}$ D. $\frac{1}{12}$

49. Divide: $6.695 \div 1.03 =$

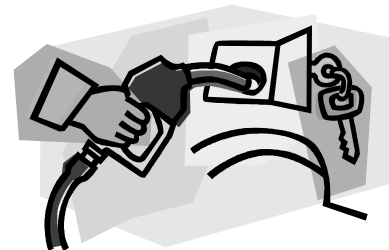
- A. 0.65
- B. 0.065
- C. 6.5
- D. 65

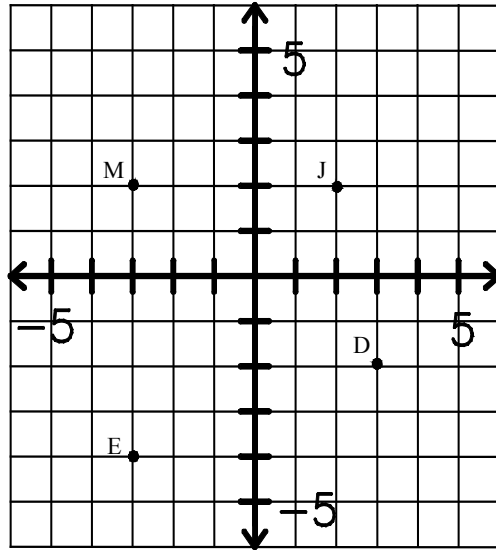
50. A customer buys a stove for \$650 and must pay a sales tax of 6% of the cost. What is the **total** cost of the stove after taxes?

- A. \$689
- B. \$679
- C. \$108.33
- D. \$650

51. Kristen's car travels 381 miles on $12\frac{7}{10}$ gallons of gas. How many miles per gallon does her car get?

- A. 30 mpg
- B. 25 mpg
- C. 20 mpg
- D. 18 mpg





52. Which ordered pair is in the first quadrant of the coordinate plane?
- A. $(-2, -4)$
 - B. $(3, -2)$
 - C. $(2, 2)$
 - D. $(-3, 2)$
53. In art class, Justin painted a floral painting for his mother's birthday. The painting measures 8.5 inches by 12.3 inches. Find the perimeter of the painting.
- A. 104.55 square inches
 - B. 104.55 inches
 - C. 41.6 square inches
 - D. 41.6 inches
54. Sam, Melissa, and Trina bought an extra-large pizza to share. Sam ate $\frac{1}{6}$ of the pizza, Melissa ate $\frac{2}{4}$ of the pizza, and Trina ate $\frac{4}{12}$ of the pizza. Which of the following is true?
- A. Sam ate $\frac{2}{3}$ less pizza than Melissa.
 - B. Melissa ate $\frac{1}{3}$ less pizza than Sam.
 - C. Trina ate the most pizza.
 - D. They all ate the same amount of pizza.



55. Find the greatest common factor of **36** and **54**.

- A. 6
- B. 12
- C. 18
- D. 36

56. What is the value of **8^4** ?

- A. 32
- B. 512
- C. 4,096
- D. 64

57. A family has an income of \$2,640 each month and spends \$792 a month for the house payment. What percent of the monthly income is spent for house payments?

- A. 3%
- B. 30%
- C. 27%
- D. 33.3%

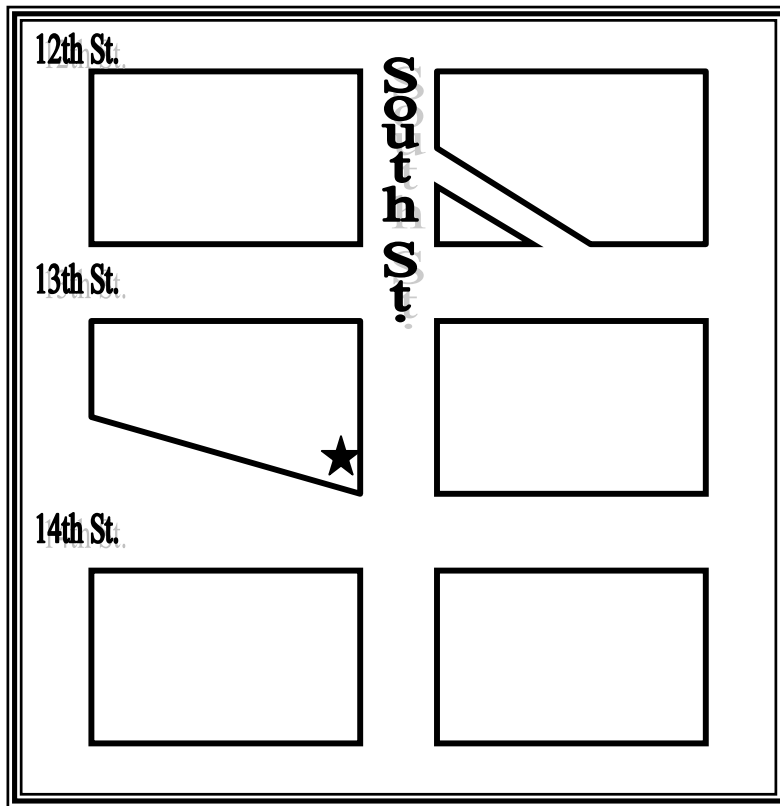


58. Solve: **$3 \cdot 4 + 14 \div 7 =$**

- A. 14
- B. 18
- C. 4
- D. 8

59. Maria is trying to organize her room. She bought two containers for storing her jewelry. One container measures 8 inches by 6 inches by 2 inches. The other container measures 5 inches by 5 inches by 4 inches. What is the volume of the container that will hold MORE of Maria's stuff?

- A. 100
- B. 96
- C. 16
- D. 14



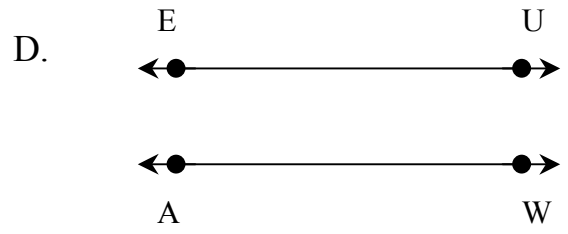
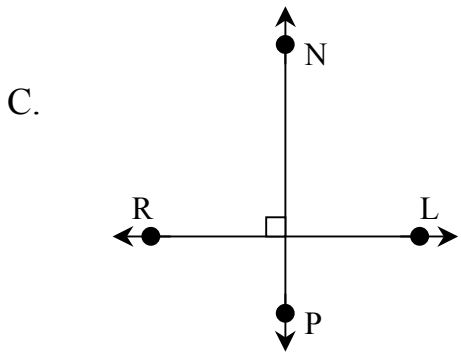
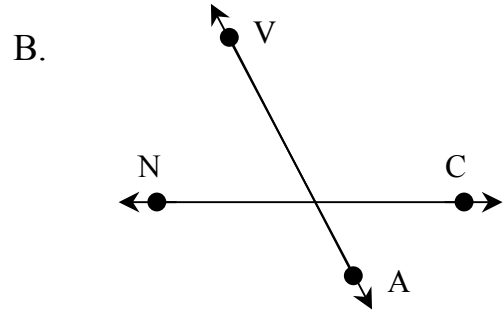
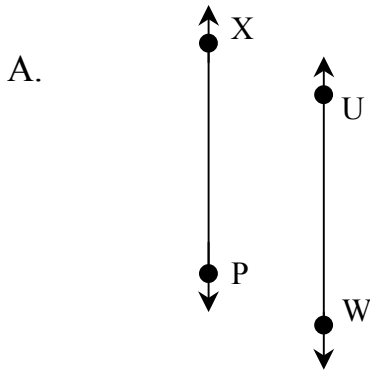
60. Look at the map above. John has an appointment with Dr. Smith at the medical center at 1:00 p.m. The medical center is located on the corner of South Street and 14th Street. The medical center is represented on the map by the star. What type of angle does this location on the map represent?

- A. a right angle
- B. an acute angle
- C. an obtuse angle
- D. none of the above

61. Which is NOT equivalent to **30%**?

- A. $\frac{30}{100}$
- B. $\frac{1}{3}$
- C. .3
- D. $\frac{3}{10}$

62. Which set of lines is perpendicular?

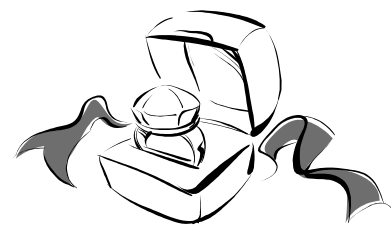


63. Which shows a complete list of the factors of 24?

- A. 1, 2, 3, 6, 8, 12
- B. 0, 1, 2, 3, 4, 6, 8, 12
- C. 1, 2, 3, 4, 6, 8, 12, 24
- D. 2, 3, 4, 6, 8, 12, 24

64. Jana won a door prize at the grand opening of a jewelry store. She gets to draw a gift from a bag. If the bag contains 4 topaz rings, 10 pearl rings, 15 ruby rings, and 1 diamond ring, what is the probability of Jana winning the diamond ring or a topaz ring?

- A. $\frac{1}{6}$
- B. $\frac{4}{30}$
- C. $\frac{1}{30}$
- D. $\frac{1}{4}$

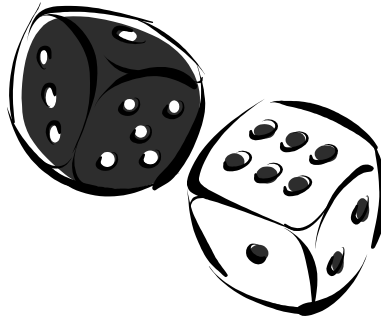


65. Which digit represents the thousandths in the number **8,354.9762**?

- A. 8
- B. 6
- C. 7
- D. 2

66. A pair of six-sided dice numbered 1-6 is rolled. What is the probability of rolling a sum of 2?

- A. $\frac{1}{36}$
- B. $\frac{3}{36}$
- C. $\frac{5}{36}$
- D. $\frac{1}{6}$



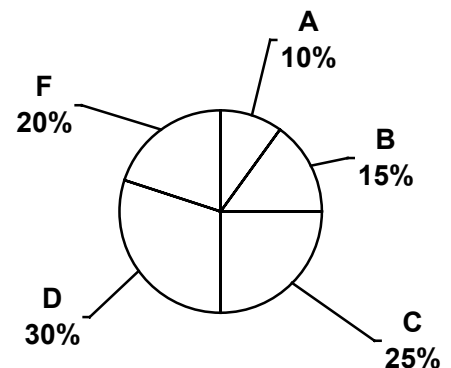
67. What is the word form for the number **2,789,692,000**?

- A. two million, seven eighty nine thousand, six hundred ninety two
- B. two billion, seven hundred and ninety eight million, six hundred ninety two thousand
- C. two billion, seven hundred eighty nine thousand, six hundred ninety two
- D. none of the above

68. Look at the pie chart below. What percentage of students made a C or better on the math test?

- A. 20%
- B. 25%
- C. 35%
- D. 50%

Student Math Test Scores



69. Evaluate $\frac{3x}{4x-3}$ if $x = -2$.

- A. .75
- B. .65
- C. .55
- D. -.55

70. Find the solution sentence to *“the sum of a number and five equals eight more than six times the number.”*

- A. $5x = 6x + 8$
- B. $x + 5 = 6x + 8$
- C. $x + 5 = 6(x + 8)$
- D. $5x = 6(x + 8)$

71. Find the missing number below.

26, 20, 14, ? , 2

- A. 10
- B. 12
- C. 8
- D. 6

72. You go to an ice-cream shop and buy three scoops of ice-cream. Your choices are chocolate (C), vanilla (V), and strawberry (S). What are all the possible combinations of ice-cream you can buy?

- A. CVS, CCV, CCS, VVC, VVS, SSC, SSV, CCC, VVV, SSS
- B. CVS, CCV, CCS, VVC, VVS, SSC, SSV, CCC, VVV, SSS, SVS
- C. CCC, VVV, SSS
- D. CVS, CSV, VSC, VCS, SVC, SCV

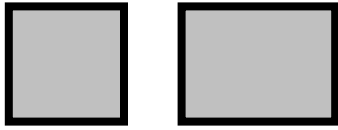


73. Josh’s club is catering a dinner. The menu will include 2 entrees, 4 side dishes, and 3 desserts. If Josh chooses 1 entrée, 1 side dish, and 1 dessert, how many combination possibilities does Josh have for his meal?

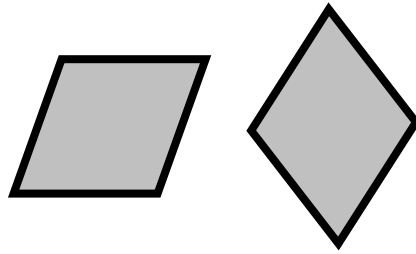
- A. 9
- B. 24
- C. 16
- D. 32

74. Which pair is congruent?

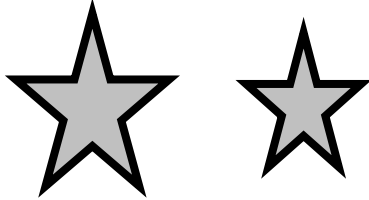
A.



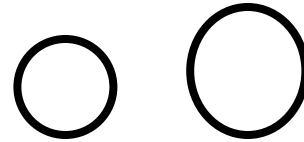
B.



C.

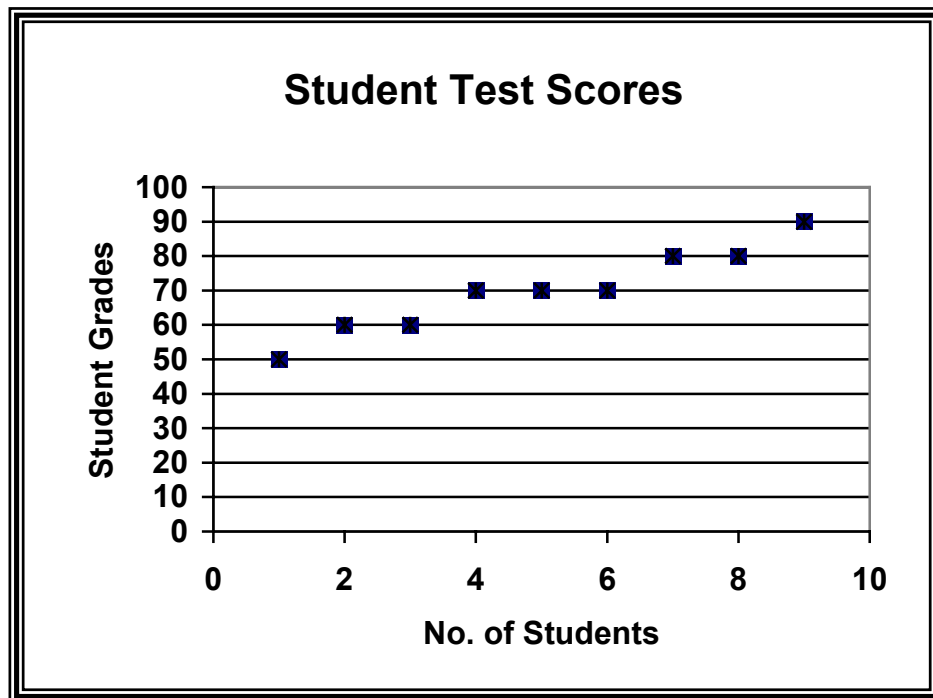


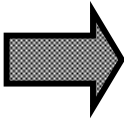
D.

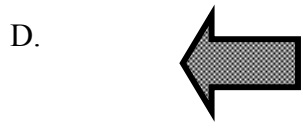
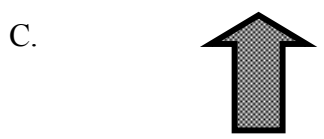


75. Look at the graph below. What is the mode for the test scores?

- A. 50
- B. 60
- C. 70
- D. 80

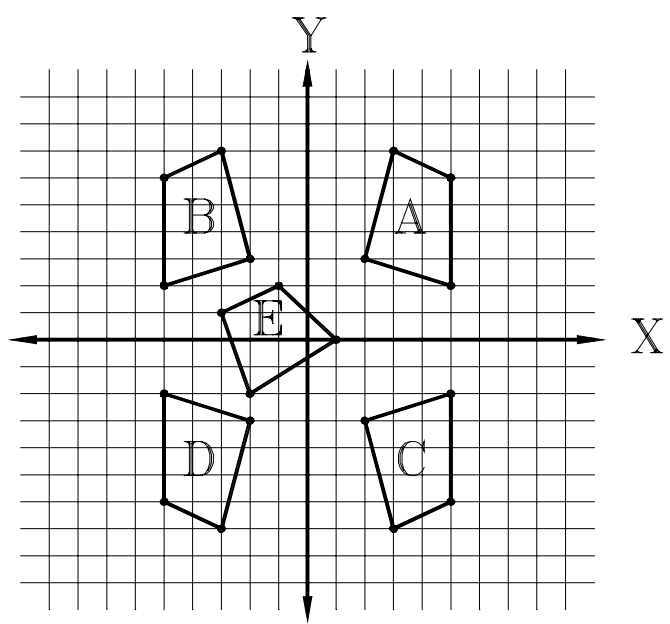


76. In what position will the  be if it is rotated 270° counterclockwise?

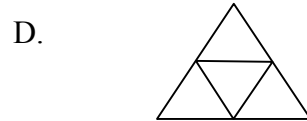
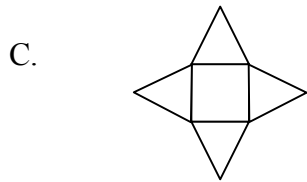
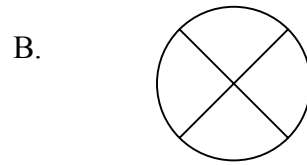
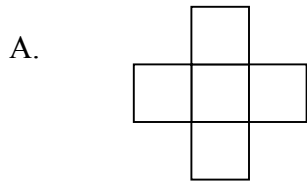


77. Which shows **Figure A** after it has been reflected over the x-axis?

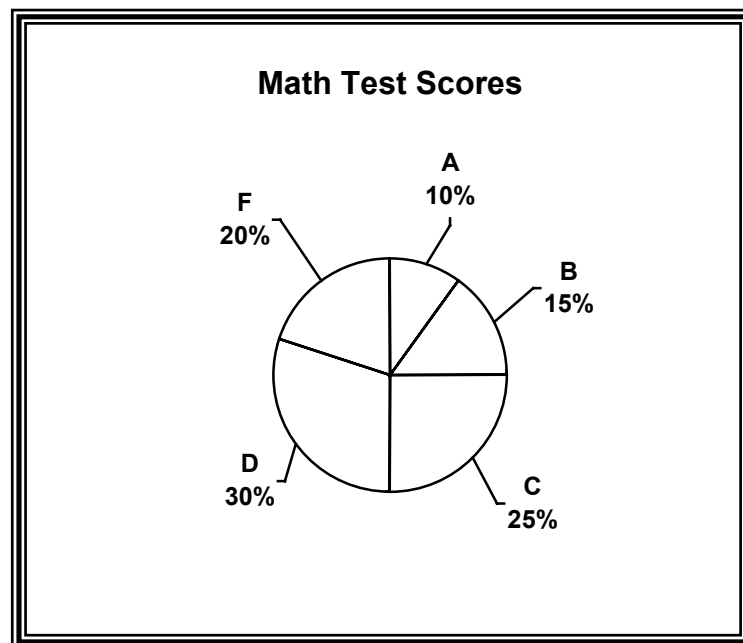
- A. Figure B
- B. Figure D
- C. Figure C
- D. Figure E



78. Which would be a net for a **square** pyramid?



80 of Mrs. Smith's students took a math test on Wednesday. Their scores are reflected on the pie chart below.



79. How many of Mrs. Smith's students made a D on the math test?

- A. 30
- B. 24
- C. 70
- D. none of the above

80. Look at the pictograph below. If the total number of doughnuts sold on Wednesday equals ten dozen, what number does the picture of the half-doughnut represent?
- A. 4 dozen
 - B. 8 dozen
 - C. 2 dozen
 - D. 2 doughnuts

