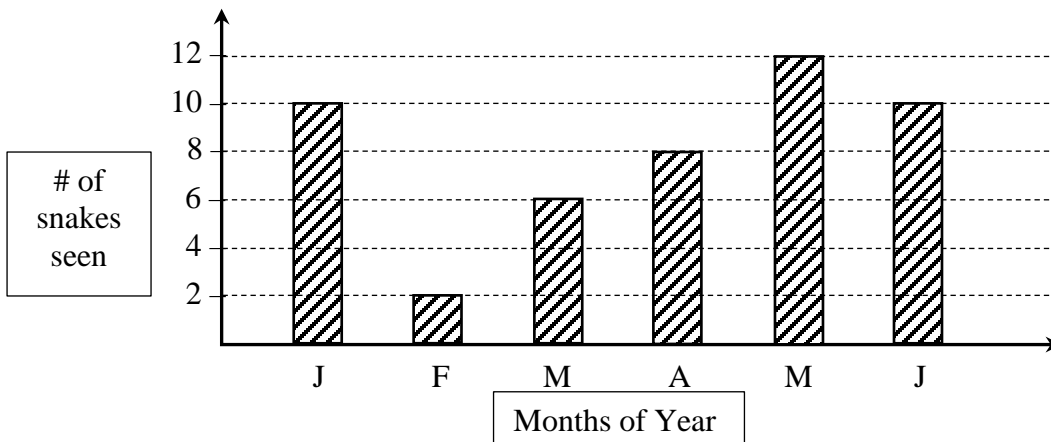


2019 TAME Middle School State Practice Mathematics Test

- (1) What number results when the product of eight and eight is divided by the sum of eight and eight?
 A) 4 B) 8 C) 16 D) 64
- (2) $8 + 0.25 \times 440 =$
 A) 110 B) 118 C) 363 D) 3,360
- (3) Two cubic yards is equal to how many cubic feet?
 A) 27 B) 54 C) 1,728 D) $\frac{1}{9}$
- (4) $1.1333 \dots - 0.35 =$
 A) $1\frac{29}{60}$ B) $\frac{13}{60}$ C) $\frac{47}{60}$ D) $\frac{59}{75}$
- (5) Sally Ride has \$3.70 in dimes and quarters. If there are 25 coins in all, how many of them are dimes?
 A) 8 B) 17 C) 9 D) 18

For problems 6 – 9, please use the graph below.



- (6) During the months of January through June, María Ardila-Robayo spotted and counted different snakes at a local ranch. What is the mean number of snakes seen each month at this ranch?
 A) 6 B) 7 C) 8 D) 10
- (7) During the months of January through June, María Ardila-Robayo spotted and counted different snakes at a local ranch. What is the range for the number of snakes seen at this ranch?
 A) 6 B) 7 C) 8 D) 10
- (8) During the months of January through June, María Ardila-Robayo spotted and counted different snakes at a local ranch. If María was paid 25¢ for each snake she sees and counted on this ranch, how much is she paid for all the snakes she sees?
 A) \$48 B) \$36 C) \$12 D) \$8
- (9) During the months of January through June, María Ardila-Robayo spotted and counted different snakes at a local ranch. If all the snakes spotted are poisonous, which month is most hazardous to walk about the ranch?
 A) May B) February C) January/June D) March

- (10) $8\frac{3}{8} \div 1\frac{1}{4} =$
 A) $10\frac{15}{32}$ B) $10\frac{13}{16}$ C) $6\frac{7}{10}$ D) $8\frac{13}{16}$
- (11) What is the largest prime factor of 330?
 A) 2 B) 3 C) 10 D) 11
- (12) What is the mode for the set of data: {2, 8, 9, 2, 1, 9, 6, 8, 2, 10}?
 A) $5\frac{1}{2}$ B) $5\frac{7}{10}$ C) 2 D) 7
- (13) If the positive square root of two-hundred is x , then which of the following is a true statement?
 A) $11 < x < 12$ B) $12 < x < 13$ C) $13 < x < 14$ D) $14 < x < 15$
- (14) My ladder is 15 feet long. If I lean the ladder so that it touches a wall 12 feet above the floor, how far from the wall is the other end of the ladder?
 A) 3 ft. B) 9 ft. C) 6 ft. D) 8.1 ft.
- (15) A 12-gallon tank is filled with water at the rate of $\frac{1}{4}$ gallon in 5 seconds. At this rate, how long will it take to fill $\frac{5}{6}$ of the tank?
 A) 200 min. B) 4 min. 20 sec. C) 3 min. 30 sec. D) 3 min. 20 sec.
- (16) What is the slope of a straight line perpendicular to the line with the equation: $6y + 10x = -15$?
 A) $\frac{3}{5}$ B) $\frac{5}{2}$ C) $-\frac{5}{3}$ D) $-\frac{3}{5}$
- (17) An isosceles triangle, with an altitude of 6-inches drawn to its noncongruent side, is attached to a square with a perimeter of 36 inches. What is the total area of this figure?
 A) 135 square inches B) 108 square inches C) 81 square inches D) 54 square inches
- (18) The table to the right shows the number of milligrams of sodium in each of three different sizes of a soft drink. Based on the pattern in the table, what is the total number of milligrams of sodium in a 24-fluid-ounce cup of the soft drink?
 A) 90 milligrams
 B) 108 milligrams
 C) 126 milligrams
 D) 144 milligrams

**Sodium Amounts in
Soft Drink Sizes**

Drink Size (fluid ounces)	Sodium Amount (milligrams)
8	36
12	54
16	72

- (20) How many quarts of pure alcohol must be added to 5 quarts of a 40% alcohol solution to make a 50% alcohol solution?
 A) 1 quart B) 2 quarts C) 3 quarts D) 4 quarts
- (21) In 20 minutes, Shuri can do a job that takes her older brother, T'Challa, 50 minutes to do. How long will it take them to do the job working together?
 A) $10\frac{1}{2}$ minutes B) $12\frac{1}{2}$ minutes C) $14\frac{2}{7}$ minutes D) 16 minutes
- (22) Two angles of an isosceles triangle measure 70° and x° . What is the sum of the two possible values of x ?
 A) 95° B) 125° C) 145° D) 165°
- (23) Forty-four and four-ninths percent of forty-five is equal to what?
 A) 60 B) 20 C) 18 D) 15
- (24) A product of a number and three is decreased by ten. Which of following is an expression that describes this, using n as the unknown number?
 A) $3n - 10$ B) $\frac{n}{3} - 10$ C) $10n - 3$ D) $3n + 10$
- (25) Three gears from three different bicycles are connected so that as one turns the other gears also turn. One gear has 24 teeth and is connected the gear that has 36 teeth which is connected to the third gear which has 12 teeth. If the gear with 24 teeth turns one complete turn, how much does the gear with 12 teeth turn?
 A) 18 turns B) 15 turns C) 8 turns D) 2 turns
- (26) Austin and Temple are 50 miles apart along Interstate 35. Carol Danvers drove from Austin to her friend Maria Rambeau's house in Temple, averaging 60 miles per hour. Leaving the car with her friend, Carol rode a bus back to Austin along the same route and averaged 40 miles per hour on the return trip. What was the average speed for the round trip, in miles per hour (mph)?
 A) 46 mph B) 48 mph C) 50 mph D) 52 mph
- (27) A cube is formed by connecting identical straws. The surface area of this cube is 96 square inches. If the cube is disassembled, and the straws placed together, end to end, what is the total length of the straws?
 A) 4 inches B) 8 inches C) 12 inches D) 48 inches
- (28) What number is equivalent to 3.645×10^4 ?
 A) 0.0003645 B) 3,645 C) 364,500 D) 36,450
- (29) Set A = {A, R, L, I, N, G, T, O, N}, Set B = {T, A, R, R, A, N, T} and set C = {C, O, U, N, T, Y}. What is the number of elements in $A \cap B \cap C$?
 A) 4 B) 3 C) 2 D) 1
- (30) Two containers each contain the same amount of juice. If 15 ounces of the first container are poured into the second container, then the second container has twice as much as much juice as the first container. How many ounces of juice did the first container have originally?
 A) 60 ounces B) 45 ounces C) 30 ounces D) 25 ounces

For questions 31 – 34, please use the table below.

Day	# Minutes
Monday	40
Tuesday	60
Wednesday	30
Thursday	45
Friday	15

- (31) Lunella Lafayette asked her friends how many minutes they spent doing homework during the school week. The above table lists the amount of time they spent. What is the median amount of time spent doing homework?
A) 190 minutes B) 38 minutes C) 45 minutes D) 40 minutes
- (32) Lunella Lafayette asked her friends how many minutes they spent doing homework during the school week. The above table lists the amount of time they spent. What is the mean amount of time spent doing homework?
A) 190 minutes B) 38 minutes C) 45 minutes D) 40 minutes
- (33) Lunella Lafayette asked her friends how many minutes they spent doing homework during the school week. The above table lists the amount of time they spent. What is the range of the amount of time spent doing homework?
A) 190 minutes B) 38 minutes C) 45 minutes D) 40 minutes
- (34) Lunella Lafayette asked her friends how many minutes they spent doing homework during the school week. The above table lists the amount of time they spent. What is the total amount of time spent doing homework?
A) 190 minutes B) 38 minutes C) 45 minutes D) 40 minutes
- (35) A car trip of 180 miles would have taken four-fifths as long if the average speed had been increased by 9 miles per hour. How fast was the car traveling?
A) 32 miles per hour B) 36 miles per hour C) 45 miles per hour D) 52 miles per hour
- (36) A square has a perimeter of eight inches. Another square is drawn inside this square by line segments connecting the midpoints of each side of the outer square? What is the area of this inner square?
A) 8 square inches B) 4 square inches C) 2 square inches D) 1 square inch
- (37) If the sales tax on certain objects is $8\frac{1}{4}\%$, how much sales tax is there for an item that costs \$200?
A) \$16.50 B) \$216.50 C) \$8.50 D) \$208.50
- (38) A cube that is one-foot length on each side is to be divided evenly into cubes that are six inches length on each side. If all these six-inch cubes are to be stacked one upon the other, how many feet high is it from the bottom to the top?
A) 1 foot B) 2 feet C) 4 feet D) 8 feet
- (39) How many different isosceles triangles have integer side lengths and perimeter 23?
A) 2 B) 4 C) 6 D) 11

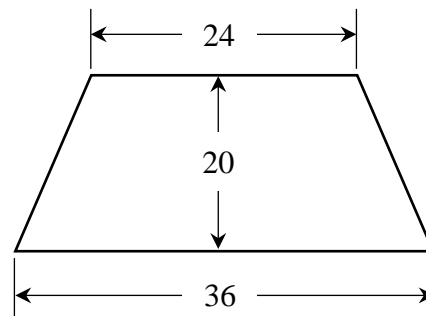
- (40) The function $y = x^2 + 4x + 4$ has a vertex with the coordinates (x, y) . What is the value of x ?
 A) 0 B) 2 C) -2 D) 4

- (41) Rosie Revere's living expenses each month are shown in the table to the right. Assuming Rosie works at least 40 hours per week and 4 weeks per month, what hourly rate will at least pay for these expenses?
 A) \$100/hour
 B) \$50/hour
 C) \$25/hour
 D) \$15/hour

Food	\$600
Mortgage	\$1800
Entertainment	\$800
Fuel/car payment	\$800

Monthly Expenditures

- (42) What is the area of the isosceles trapezoid to the right?
 A) 600
 B) 300
 C) 240
 D) 80



- (43) $(1 + 2 + 3 + \dots + 15) - (1 + 3 + 5 + \dots + 15) =$
 A) 184 B) 120 C) 64 D) 56
- (44) A three-digit integer contains one of each of the digits 1, 3 and 5. What is the probability that the integer is divisible by 5?
 A) $\frac{1}{3}$ B) $\frac{1}{9}$ C) $\frac{1}{6}$ D) $\frac{1}{5}$
- (45) What is the positive difference between largest and smallest prime numbers less than 100?
 A) 96 B) 95 C) 94 D) 93
- (46) What is the 75th character in the sequence: ♣♦♥♠♣♦♥♠♣♦♥♠...?
 A) ♣ B) ♦ C) ♥ D) ♠
- (47) If the number 28561N32 is to be divided by 9 with no remainder, then N , ($N \neq 9$), has to be equal to what number?
 A) 0 B) 1 C) 2 D) 3
- (48) If a circle's radius is increased by 50%, then its area will be increased by what percent?
 A) 50% B) 100% C) 225% D) 125%
- (49) If four identical coins are tossed, what is the total number possible events that can occur?
 A) 4 B) 8 C) 16 D) 64
- (50) On average, for every 4 sports cars sold at the local car dealership, 7 SUV's are sold. The dealership predicts that it will sell 28 sports cars next month. How many SUV's does it expect to sell?
 A) 7 B) 32 C) 35 D) 49

2019 TAME Middle School State Practice Mathematics Test Answer Key

- (1) A
- (2) B
- (3) B
- (4) C
- (5) B
- (6) C
- (7) D
- (8) C
- (9) A
- (10) C
- (11) D
- (12) C
- (13) D
- (14) B
- (15) D
- (16) A
- (17) B
- (18) B
- (19) C
- (20) A
- (21) C
- (22) A
- (23) B
- (24) A
- (25) D

- (26) B
- (27) D
- (28) D
- (29) C
- (30) B
- (31) D
- (32) B
- (33) C
- (34) A
- (35) B
- (36) C
- (37) A
- (38) C
- (39) C
- (40) C
- (41) C
- (42) A
- (43) D
- (44) A
- (45) B
- (46) C
- (47) A
- (48) D
- (49) C
- (50) D