

Penny Sikes 5th and 6th Grade Mathematics Tournament
Sponsored by Farmers and Merchants Bank

5th Grade Individual Test

- 1) Make sure your name, the full name of your school, and your grade are written on the scantron.
- 2) NO CALCULATORS!
- 3) DO NOT OPEN THIS TEST BOOKLET UNTIL INSTRUCTED TO DO SO BY THE TEST MONITOR.
- 4) If you must leave to go to the restroom, raise your hand and a monitor will escort you to the nearest restroom. Remember you have a time limit.
- 5) Read each problem carefully and mark each answer on your scantron.
- 6) Each correct answer on the test will be counted as one point on your individual score.
- 7) If individuals have the same written test score, ties will be broken by determining which student gave correct answers to the most difficult item(s) on the test.
- 8) When the individual testing is over, please make sure you take your pencil, test, and scratch work with you. You will need the pencil for the ciphering rounds.

Penny Sikes Fifth and Sixth Grade Mathematics Tournament

Southeast Bulloch High School

Fifth Grade Written Test 2009

Name _____

1. Write 1052 in expanded notation.

- (a) $(1 \times 10000) + (0 \times 1000) + (2 \times 100) + (5 \times 10)$
- (b) $(1 \times 1000) + (0 \times 100) + (5 \times 10) + 2$
- (c) $(1 \times 10000) + (0 \times 1000) + (5 \times 100) + (2 \times 10)$
- (d) $(1 \times 1000) + (0 \times 100) + (2 \times 10) + (5 \times 10)$

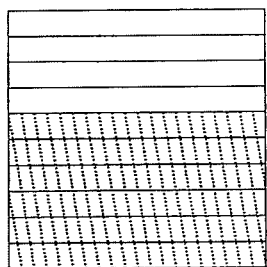
2. Complete the statement. 9.25 _____ $= 92.5$ mm

- (a) cm
- (b) dm
- (c) dkm
- (d) km

3. Kayla bought a skirt for \$29.24 and a blouse for \$21.59. What was the total cost for her outfit?

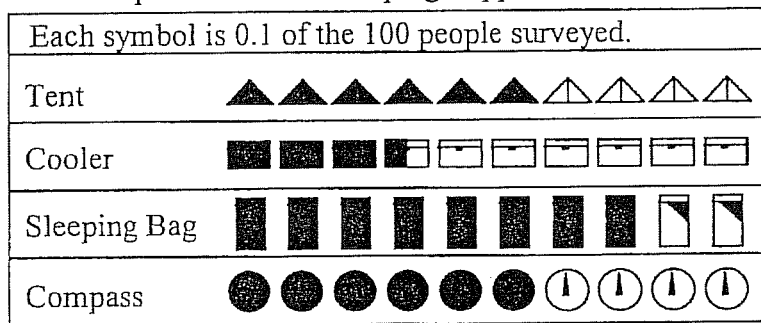
- (a) \$49.83
- (b) \$50.73
- (c) \$7.65
- (d) \$50.83

4. Write the shaded part of this square as a decimal number.



- (a) 1.6
- (b) 0.5
- (c) 0.4
- (d) 0.6

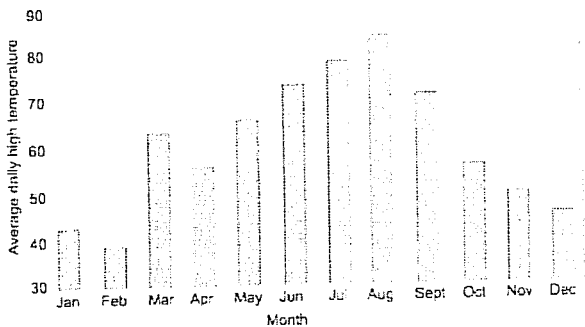
5. Portion of People Who Own Camping Supplies



One hundred people were asked which type of camping supplies they own. Estimate the portion that said they own a compass.

- (a) 4 tenths or 0.40 said they own a compass
- (b) 6 tenths or 0.60 said they own a compass
- (c) 2.5 tenths or 0.25 said they own a compass
- (d) 5 tenths or 0.50 said they own a compass

13. The bar graph shows the average daily high temperature at Point Henry each month for the year 2003.



Which statement is false?

- (a) During 6 of the months, the average daily high exceeded 60 degrees.
- (b) The average daily high for the entire year exceeded 80 degrees.
- (c) The average daily high for August was higher than for July.
- (d) The average daily high for March exceeded 60 degrees.

14. In the 1980 Olympics, the winning time for the women's 100 meter run was 11.06 seconds. The time of the winning man was 10.25 seconds. How much faster was the man's time?

- (a) 0.71 sec
- (b) 0.81 sec
- (c) 2.131 sec
- (d) 21.31 sec

15. Multiply: 5.28×1.8

- (a) 0.9504
- (b) 95.04
- (c) 9.504
- (d) 950.4

16. Which expression would be used to represent the phrase:
the product of three and a number increased by five

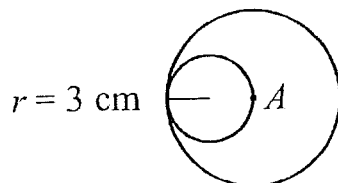
- (a) $3 + n + 5$
- (b) $3n - 5$
- (c) $\frac{3}{n} + 5$
- (d) $3n + 5$

17. Arrange in increasing order and write using a < sign:

2.002 2.026 2.02

- (a) $2.026 < 2.002 < 2.02$
- (b) $2.002 < 2.026 < 2.02$
- (c) $2.026 < 2.02 < 2.002$
- (d) $2.002 < 2.02 < 2.026$

18. Point A is the center of the larger circle. The radius of the smaller circle is 3 cm. What is the area of the larger circle? Use 3.14 for π .



- (a) 9.42 sq cm
- (b) 18.84 sq cm
- (c) 28.26 sq cm
- (d) 113.04 sq cm

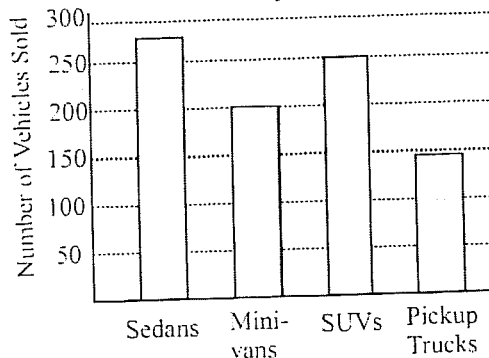
19. Kim wants to buy a used car and needs a down payment of 25%. If the car Kim wants to buy costs \$3100, how much down payment will she need?

- (a) \$7,750 (b) \$7.75 (c) \$77,500 (d) \$775

20. What is the greatest common factor of 36 and 48?

- (a) 12 (b) 6 (c) 1728 (d) 144

21. Paul constructed a bar graph showing the number of each of four types of vehicle sold by Sunshine Motors last year.



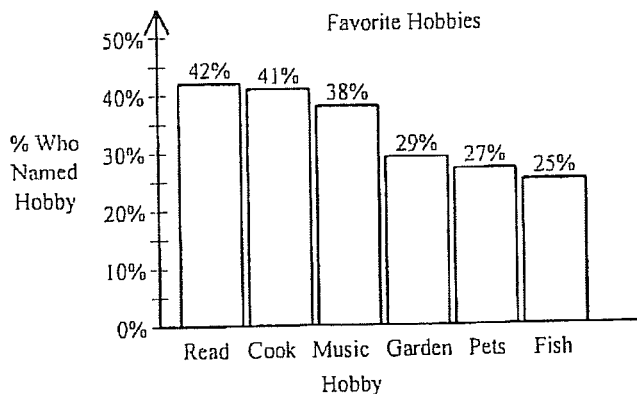
Approximately how many more sedans and minivans were sold than SUVs and pickup trucks?

- (a) 25 (b) 50 (c) 75 (d) 100

22. A charter bus holding 56 passengers costs \$29.75 an hour. If the round trip took 8 hours, what did it cost each passenger?

- (a) \$238.00 (b) \$8.50 (c) \$4.25 (d) \$42.50

23. In a survey, 200 people were asked to name one to three favorite hobbies. The 6 most popular are shown in the bar graph below. Find the number of people who named reading as their favorite.



- (a) 50 named reading (b) 114 named reading
(c) 42 named reading (d) 84 named reading

24. Convert 19 inches to feet.

- (a) $6\frac{1}{3} ft$ (b) 228 ft (c) 57 ft (d) $1\frac{7}{12} ft$

25. Evaluate $0.25 + \frac{1}{6}$

- (a) $\frac{1}{24}$ (b) $\frac{1.25}{6}$ (c) $\frac{5}{12}$ (d) $\frac{1}{5}$

26. Find four fractions equal to $\frac{8}{3}$.

- (a) $\frac{96}{18}, \frac{112}{21}, \frac{128}{24}, \frac{72}{27}$ (b) $\frac{49}{18}, \frac{55}{21}, \frac{65}{24}, \frac{71}{27}$

- (c) $\frac{48}{18}, \frac{56}{21}, \frac{64}{24}, \frac{72}{27}$ (d) $\frac{48}{36}, \frac{56}{42}, \frac{64}{24}, \frac{72}{54}$

27. Rosa has $8\frac{4}{5}$ yards of material. Her new skirt will take $4\frac{4}{7}$ yards. How much material will she have left after the skirt is made?

- (a) $4\frac{8}{35}$ yd (b) $13\frac{13}{35}$ yd (c) $10\frac{4}{5}$ yd (d) $6\frac{3}{7}$ yd

28. There are 32 people on your swim team. Three-fourths of the team went to a swim meet in July. How many people went to the swim meet in July?

- (a) 8 (b) 48 (c) 24 (d) 16

29. Solve: $24 + 16 \times 2 - 10 \div 2 =$

- (a) 51 (b) 36 (c) 35 (d) 25

30. The best estimate for the length of a bed is

- (a) 2 millimeters (b) 2 centimeters (c) 2 meters (d) 2 kilometers

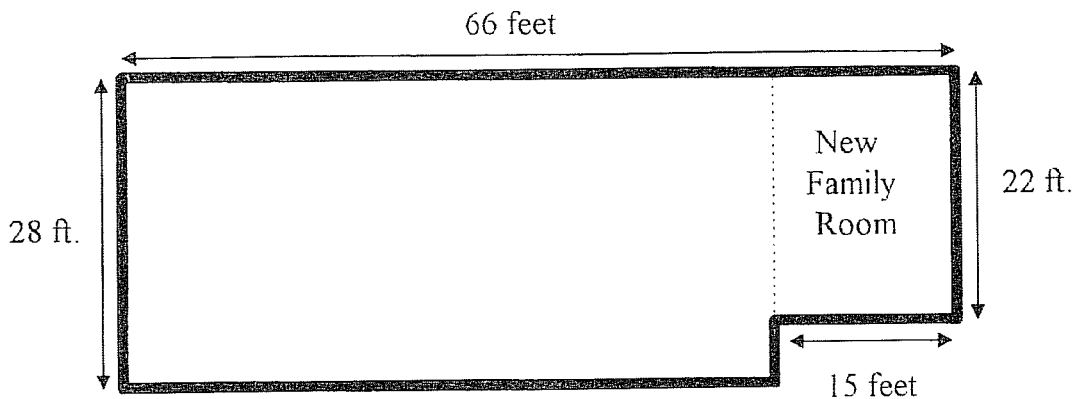
31. Divide: $11\frac{2}{3} \div 3\frac{4}{7}$

- (a) $3\frac{3}{5}$ (b) $\frac{3}{5}$ (c) $3\frac{4}{15}$ (d) $1\frac{2}{5}$

32. Evaluate the expression: $3m + 4n - p$, if $m = 5$ $n = 2$ and $p = 8$

- (a) 70 (b) 15 (c) 8 (d) 31

33. Teresa is considering adding a family room to her house. What will be her new area of her house with the addition?

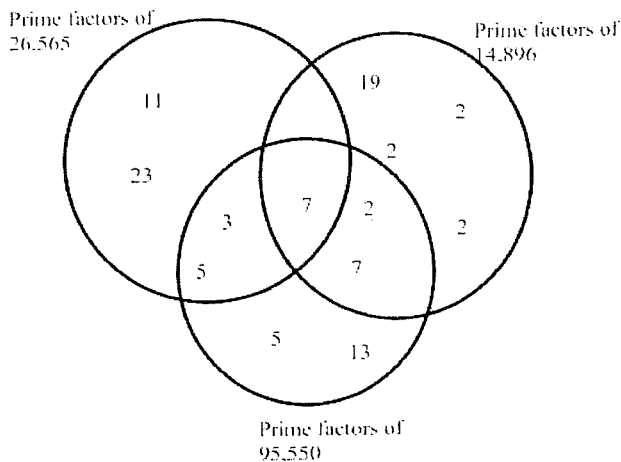


- (a) 1,758 sq ft (b) 1,452 sq ft (c) 1,848 sq ft (d) 131 sq ft

34. A tank holds $15\frac{1}{4}$ gallons of water. If the tank is $\frac{4}{5}$ full, how many gallons of water are in the tank?

- (a) $12\frac{1}{4}$ (b) $16\frac{1}{20}$ (c) $12\frac{1}{5}$ (d) $10\frac{4}{5}$

35. Each of the three circles of the Venn Diagram below contains the prime factors of one of three composite numbers.



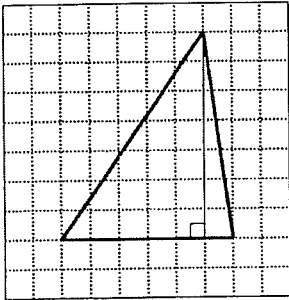
What is the greatest common factor shared by all three numbers?

- (a) 7 (b) 3 (c) 5 (d) 2

36. A farmer has $159\frac{5}{8}$ feet of chicken wire. He wants to build a pen for his chickens so that each side is the same length. What will be the length of the side of a triangular chicken pen?

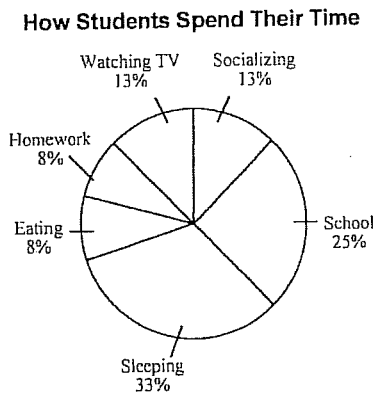
- (a) $479\frac{1}{8}$ ft (b) $53\frac{5}{24}$ ft (c) $478\frac{7}{8}$ ft (d) $53\frac{7}{24}$ ft

37. Each small square in the grid is 1 unit by 1 unit. Find the area of the triangle.



- (a) 44 square units (b) 13 square units (c) 21 square units (d) 42 square units

38. Grade 5 students were surveyed to determine how many hours a day they spent, on average, on various activities. The results are shown in the circle graph below. About how much time altogether was spent on eating and sleeping?



- (a) 4 hours (b) 16 hours (c) 41 hours (d) 10 hours

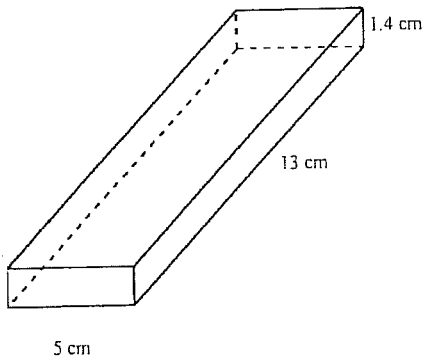
39. What is the least common multiple of 45 and 30?

- (a) 15 (b) 1350 (c) 5 (d) 90

40. What is the value of n in the equation $2n + 5 = 27$?

- (a) 11 (b) 2 (c) 20 (d) 16

41. Calculate the volume of the rectangular prism.

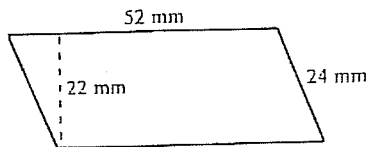


- (a) 19.4 cm^3 (b) 910 cm^3 (c) 91.0 cm^3 (d) 41.2 cm^3

42. Farmer McDonald's hen lays eggs at the rate of approximately 50 eggs in three months. If the hen continues at this rate, approximately how many eggs will she lay in 4 years?

- (a) 67 (b) 200 (c) 600 (d) 800

43. Find the area of the figure.



- (a) 196 sq mm (b) 1144 sq mm (c) 27,456 sq mm (d) 1248 sq mm

44. Joyce earns \$200 per week plus a commission on 10% of her weekly sales. Last week Joyce earned a total of \$350. What was the amount of her sales for last week?

- (a) \$35 (b) \$150 (c) \$1500 (d) \$3500

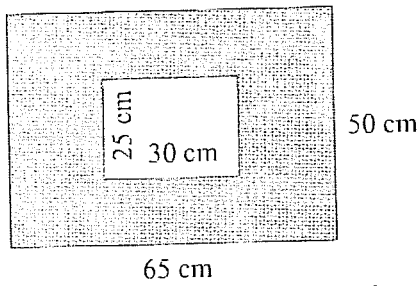
45. A preschool is required to have a playground of at least 900 square feet. Which of the following would be satisfactory measurements for a playground for the school?

- (a) 30 feet by 32 feet (b) 27 feet by 30 feet
(c) 15 feet by 40 feet (d) 10 feet by 80 feet

46. In a three-person medley race, the 100-m leg was run in 10.1 seconds, the 200-m leg was run in 20.55 seconds, and the 400-m leg was run in 45.4 seconds. What was the total time for the race?

- (a) 25.35 seconds (b) 76.05 seconds (c) 232.8 seconds (d) 31.725 seconds

47. Find the area of the shaded region in the figure below.



- (a) 3250 square cm (b) 750 square cm (c) 875 square cm (d) 2500 square cm

48. Tabitha wants to put lace trim around the edges of her circular table cloth. She needs to figure the _____ to determine how much lace she will need to buy.

- (a) volume (b) circumference (c) diameter (d) area

49. Derek wants to buy a CD player that normally sells for \$90. This week it is on sale for 40% off. How much would it cost Derek if he bought it this week?

- (a) \$54 (b) \$36 (c) \$40 (d) \$64

50. $3\frac{2}{3} + 1\frac{3}{4} =$

- (a) $4\frac{5}{7}$ (b) $4\frac{5}{12}$ (c) $5\frac{1}{2}$ (d) $5\frac{5}{12}$

Fifth Grade Written Test Answers 2009:

- | | |
|-------|-------|
| 1. b | 26. c |
| 2. a | 27. a |
| 3. d | 28. c |
| 4. d | 29. a |
| 5. b | 30. c |
| 6. b | 31. c |
| 7. d | 32. b |
| 8. c | 33. a |
| 9. b | 34. c |
| 10. d | 35. a |
| 11. d | 36. b |
| 12. a | 37. c |
| 13. b | 38. d |
| 14. b | 39. d |
| 15. c | 40. a |
| 16. d | 41. c |
| 17. d | 42. d |
| 18. d | 43. b |
| 19. d | 44. c |
| 20. a | 45. a |
| 21. c | 46. b |
| 22. c | 47. d |
| 23. d | 48. b |
| 24. d | 49. a |
| 25. c | 50. d |