Sixth Grade Math Tournament
Cedar Ridge Middle School
May 7, 1997

Part A

Multiple Choice Section (You will receive 5 points for each correct answer.)

1. What was the date on the 97th day of 1997?

   A. Apr. 6 B. Apr. 7 C. Apr. 8 D. Apr. 9 E. Not Given

2. What is the sum of the prime numbers between 70 and 100?

   A. 737 B. 660 C. 492 D. 579 E. Not Given

3. Which of these could be the measures of the angles of a right-scalene triangle?

   A. 80°, 55°, 45° B. 45°, 45°, 90° C. 90°, 40°, 50°
   D. 90°, 60°, 25° E. Not Given

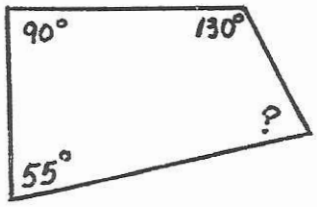
4. Which of the following represents the greatest amount of water?

   A. 42 oz. B. 2 pt. + 12 oz. C. 1 qt. D. 5 cups E. 3 pt.

5. Chris bought one dozen chocolate covered donuts to bring to math team practice. He ate one-third of them on the way to school. Breck ate one-fourth of the remaining donuts before practice began. When Arpan arrived, he ate all that were left. How many donuts did Arpan eat?

   A. 3 B. 4 C. 5 D. 6 E. Not Given

6. Brad learned that the sum of the degrees of the angles of any quadrilateral is exactly twice the sum of the degrees of the angles of any triangle. Using this fact, find the measure of the missing angle in the figure below.



   A. 55 B. 65 C. 75 D. 95 E. Not Given

7. Last week Sara walked to Arielle's house three times along a path that is 1.3 miles. She returned home each time on a shortcut that is three-fourths of a mile. How many miles did Sara walk to get to and from Arielle's house those three times last week?

   A. 6.15 B. 5.32 C. 3.55 D. 2.05 E. Not Given

8. Ryan ordered a personal pan pizza that had diameter 8 inches. Ben ordered a large pizza with diameter 16 inches. Ben's pizza is how many square inches greater than Ryan's pizza. (Use pi = 3.14)

   A. 50.24 B. 100.48 C.150.72 D. 200.96 E. Not Given

9. What is the positive difference in the sum of the composite numbers between 10 and 20 and the sum of the prime numbers between 10 and 20?
A. 15 B. 0 C. 30 D. 35 E. Not Given

10. If the quotient is 75 and the divisor is 15, what is the dividend?
A. 5 B. 90 C. 1125 D. 0 E. Not Given

11. Kei's watch has stopped at exactly 7:00. What is the measure of the smaller angle formed by the hour and minute hands of his watch?
A. 100° B. 120° C. 25° D. 150° E. Not Given

12. On Saturday Keith jogged one and one-half miles and Andrew jogged two and one-fourth miles. How many more feet did Andrew jog than Keith jogged?
A. 2,640 B. 6600 C. 2,500 D. 3,960 E. Not Given

13. What is measure of the supplement of a 50° angle?
A. 130° B. 40° C 30° D. 110° E. Not Given

14. If 5a = 70 and 8b = 20, what is the value of ab ?
A. 28 B. 35 C. 16.5 D. 90 E. Not Given

15. A number is said to be a "perfect number" if the sum of its factors (except the number itself) equals that number. For example, 6 is a "perfect number" because when its factors are added the sum is 6: 1+2+3 = 6. Which of the following numbers is also a perfect number?
A. 16 B. 28 C. 26 D. 30 E. Not Given

16. Elisa bought 2 pounds of gummy bears at $2.50 per pound and 3 pounds of gooey bears at $4.00 per pound. What was the average cost per pound?
A. $3.10 B. $3.25 C. $3.40 D. $1.25 E. Not Given

17. In the ciphering contest, Joseph answered 4 questions correctly and one question incorrectly. What percent of the questions did he answer correctly?
A. 40% B. 90% C. 75% D. 80% E. Not Given

18. Cole constructed a cube that is 7 inches on each edge (7in. long, 7 in. wide, and 7 in. high). How many one-inch cubes will fit inside?
A. 21 B. 343 C. 210 D. 243 E. Not Given

19. What is $^{+}4.25 + {}^{-}9.1$
A. $^{-}4.85$ B. 4.85 C. $^{-}13.34$ D. 13.34 E. Not Given

20. Adam wants to build a rectangular pen that will give his dog the greatest amount of area in which to roam. Adam has 60 feet of fence. What is the greatest number of square feet the fence can enclose?
A. 3600 B. 240 C. 225 D. 144 E. Not Given

Part B

Free-Response Section (You will receive 8 points for each correct answer.)

21. What is the sum of all the factors (divisors) of 91?

22. By how much does the product of 3, 4, and 5 exceed $3^2 + 4^2 + 5^2$?

23. Pooja has never made an A- in math. If she now has math test scores of 92, 100, 85, and 91, what must she make on the next test to bring her average up to exactly 93?

24. What is the 12th number in the following sequence?

    1, 4, 9, 16, 25, 36, . . .

25. Tyler constructed a regular octagon. Charles constructed a regular hexagon. The perimeter of the octagon was equal to the perimeter of the hexagon. If the length of one side of the Tyler's octagon was 7.5 cm, what was the length of one side of Charles' hexagon?

End of Exam

Be sure to leave your answer sheet with the monitor.
You may keep this copy of the exam.