FIFTH GRADE MATHEMATICS CONTEST

Math League Press, P.O. Box 17, Tenafly, New Jersey 07670-0017

1988-89 Annual 5th Grade Contest

Spring, 1989

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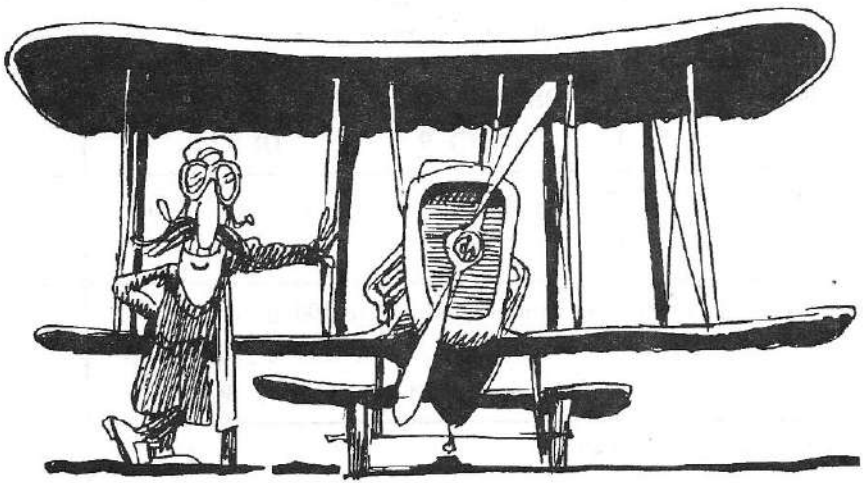
Instructions

- **Time** You will have only *30 minutes* working time for this contest. You might be *unable* to finish all 30 questions in the time allowed.
- **Scores** Please remember that *this is a contest, not a test*—and there is no "passing" or "failing" score. Few students score as high as 24 points (80% correct). Students with half that, 12 points, *deserve commendation!*
- **Format and Point Value** This is a multiple-choice contest. Each answer is an A, B, C, or D. Write each answer in the *Answer Column* to the right of each question. A correct answer is worth 1 point. Unanswered questions get no credit. You **may** use a calculator.



	Answer Column
1. $1989 = 9 \times \underline{?}$ A) 111 B) 121 C) 211 D) 221	1.
2. Each of the following has the value 0 *except* A) $0 + 100$ B) 0×100 C) $0 \div 100$ D) $100 - 100$	2.
3. $1 \times 1 \times 1 \times 1 \times 9 \times 1 \times 1 \times 1 \times 1 =$ A) 9 B) 17 C) 72 D) 81	3.
4. Of the following, which is closest in value to 1989? A) 989 B) 1889 C) 1970 D) 2000	4.
5. $98 + 98 + 98 + 98 + 98 + 2 + 2 + 2 + 2 + 2 =$ A) 495 B) 500 C) 505 D) 999	5.
6. Pat has 10 pennies and 10 nickels. The value of these coins is A) 20¢ B) 50¢ C) 60¢ D) \$1.10	6.
7. $4321 + 5678 =$ A) 9889 B) 9009 C) 10009 D) 9999	7.
8. A string of length 12 is cut into 3 pieces of equal length. What is the sum of the lengths of the 3 pieces? A) 3 B) 4 C) 9 D) 12	8.
9. $(2 + 3 + 4 + 5 + 6 + 7 + 8 + 9) - (8 + 7 + 6 + 5 + 4 + 3 + 2) =$ A) 0 B) 1 C) 9 D) 79	9.
10. How many of the whole numbers from 1 to 100 are divisible by 3? A) 3 B) 30 C) 33 D) 34	10.
11. What is the square of 4? A) 2 B) 8 C) 16 D) 44	11.

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Answer Column

12. Today, the difference between my parents' ages is 10 years. Four years ago, what was the difference between their ages? — 12.

A) 2 years B) 6 years C) 10 years D) 14 years

13. $99 + 99 + 99 + 99 + 99 + 99 + 99 + 99 + 99 + 99 =$ — 13.

A) 10×99 B) $10 + 99$ C) 9×99 D) 99×99

14. The Speedo Car Co. charges $8400 for a car, but gives a $600 rebate. (A rebate is a return of money to the buyer.) What is the real cost of the car, *after* the rebate but *before* taxes? — 14.

A) $2400 B) $7800 C) $8400 D) $9000

15. $12 \times 34 + 56 \div 7 =$ — 15.

A) $464 \div 7$ B) $1080 \div 7$ C) 504 D) 416

16. When 1 is added to an even number, the new number must be — 16.

A) prime B) divisible by 3
C) even D) odd

17. If a phone call costs 20¢ for the first 3 minutes and 5¢ for each additional minute, what is the cost of a 10-minute call? — 17.

A) 25¢ B) 55¢ C) 65¢ D) 95¢

18. What is the average of 1, 2, 3, 4, 5, 6, and 7? — 18.

A) 1 B) 4 C) 7 D) 28

19. $1000 \times 100 \times 10 \times 1 \times 0.1 \times 0.01 \times 0.001 =$ — 19.

A) 0 B) 0.1 C) 1 D) 10

20. Which of the following has the same number of sides as a rectangle? — 20.

A) a triangle B) a rhombus C) a circle D) a pentagon

21. $12 : 3 = 20 : \underline{?}$ — 21.

A) 4 B) 5 C) 6 D) 8

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Answer Column

22. How many positive prime numbers have a ones' digit of 5? — 22.

A) 0 B) 1 C) 5 D) 25

23. A movie projector works by showing 32 different "frames" every second. What is the number of "frames" in a one-hour movie? — 23.

A) 3600 B) 32×60 C) 32×360 D) 32×3600

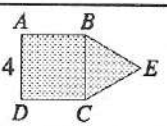
24. Of the following, which fraction does *not* equal $\frac{2}{3}$? — 24.

A) $\frac{22}{33}$ B) $\frac{20}{30}$ C) $\frac{4}{6}$ D) $\frac{12}{13}$

25. The tens' digit of a two-digit number is 5. Round this number to the nearest hundred. — 25.

A) 0 B) 50 C) 100 D) 150

26. As shown, square *ABCD* has side-length 4, and *BEC* is an equilateral triangle. The perimeter of the shaded figure *ABECD* is — 26.



A) 16 B) 20 C) 24 D) 28

27. The *digital sum* for the year 1989 is $1 + 9 + 8 + 9$ or 27. How many years from 1990 to 2800 have a *digital sum* of 27? — 27.

A) 0 B) 1 C) 2 D) 3

28. If I start with \$100, increase this by 50%, then decrease the new amount by 50%, how much money will I have? — 28.

A) \$50 B) \$66 C) \$75 D) \$100

29. What is the correct time 3600 seconds before 1:30 P.M.? — 29.

A) 12:30 P.M. B) 2:30 P.M. C) 7:30 P.M. D) 1:30 A.M.

30. January 1, 1989 was a Sunday. January 1, 1988 (a leap year) was — 30.

A) a Friday B) a Saturday C) a Sunday D) a Monday

The end of the contest **5**

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