


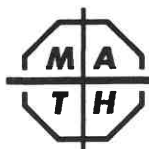


<p>26. Chemist Karl wants to combine two chemicals at a time, trying every such combination he can come up with using the 7 chemicals in his kit. In how many ways can Karl combine his chemicals? A) 14 B) 21 C) 42 D) 49</p>		26.
<p>27. Each of the following numbers is a divisor of 24680246802468024680 <i>except</i> A) 4 B) 6 C) 8 D) 20</p>		27.
<p>28. If I multiply three different prime numbers, the product must have <u>?</u> positive divisors. A) 3 B) 5 C) 6 D) 8</p>		28.
<p>29. $2^{2000} + 2^{2000} + 3^{3000} + 3^{3000} + 3^{3000} =$ A) $4^{2000} + 9^{3000}$ B) $2^{4000} + 3^{9000}$ C) $4^{2001} + 9^{3002}$ D) $2^{2001} + 3^{3001}$</p>		29.
<p>30. I drop a nickel when I start walking at one end of a field 100 m long, and drop another nickel every 5 m until I drop the last one at the other end of the field. What is the total value of the nickels I have dropped? A) \$0.95 B) \$1.00 C) \$1.05 D) \$1.10</p>		30.
<p>31. How many of the 1000 whole numbers from 1 to 1000 are both even and the square of a whole number? A) 15 B) 16 C) 30 D) 31</p>	31.	
<p>32. If one-half of one-quarter of a square has an area of 8, what is the perimeter of the square? A) 16 B) 32 C) 48 D) 64</p>	32.	
<p>33. The sum of the first 100 positive multiples of 4 is <u>?</u> more than the sum of the first 100 positive multiples of 3. A) 100 B) 400 C) 1200 D) 5050</p>	33.	
<p>34. The ratio of Og's clubs to skins is 5:3. If he trades 4 of his clubs for 2 more skins, the ratio of clubs to skins will be 8:7. How many more clubs than skins does Og have before any trading occurs? A) 8 B) 9 C) 10 D) 12</p>		34.
<p>35. What is the sum of the remainders when 100, 101, 102, . . . , 998, 999, and 1000 are each divided by 9? A) 3600 B) 3601 C) 4500 D) 4501</p>		35.

The end of the contest  6



2011-2012 Annual 6th Grade Contest

Tuesday, February 21 or 28, 2012

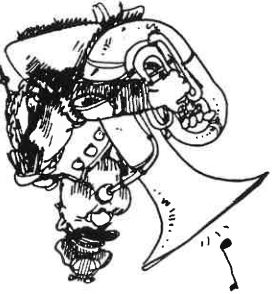
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Instructions

- **Time** Do *not* open this booklet until you are told by your teacher to begin. You might be *unable* to finish all 35 questions in the 30 minutes allowed.
- **Scores** Please remember that *this is a contest, and not a test*—there is no “passing” or “failing” score. Few students score as high as 28 points (80% correct). Students with half that, 14 points, *should be commended!*
- **Format, Point Value, & Eligibility** Every answer is an A, B, C, or D. Write answers in the *Answers* column. A correct answer is worth 1 point. Unanswered questions get no credit. You **may** use a calculator.



1.	Terry the tuba player just played an odd number of notes. He could have played $\frac{?}{2}$ notes. A) 2012 B) 2211 C) 3456 D) 4664
2.	The average of $\frac{?}{2}$ and 8 is 10. A) 6 B) 9 C) 12 D) 18
3.	The tens digit of 345 plus the hundreds digit of 456 equals A) 8 B) 9 C) 10 D) 11
4.	My first day of vacation is May 10. My last day of vacation is May 20 of the same year. How many days of vacation do I have? A) 9 B) 10 C) 11 D) 12
5.	How many minutes are in two full days? A) 1440 B) 1660 C) 2000 D) 2880
6.	What is the least common multiple of 12 and 45? A) 57 B) 90 C) 180 D) 540
7.	Dina pays 50 cents per dozen erasers. Buying 72 erasers costs her A) \$1.50 B) \$3.00 C) \$30.00 D) \$36.00
8.	The sum of an even prime number and an odd prime number is 9. The odd prime number must be A) 1 B) 5 C) 6 D) 7
9.	The sum of the largest and smallest whole-number divisors of 36 is A) 12 B) 15 C) 20 D) 37
10.	There are 400 drivers stuck in a traffic jam. If 160 of them are late for work, what percent of the drivers are late for work? A) 20% B) 40% C) 60% D) 80%
11.	The number of multiples of 4 between 1 and 222 is $\frac{?}{2}$ more than the number of multiples of 5 between 1 and 222. A) 11 B) 22 C) 33 D) 44
12.	What time is 1000 minutes after 10 A.M.? A) 4:40 P.M. B) 10:00 P.M. C) 2:40 A.M. D) 10:00 A.M.
13.	Gil flies at 800 km/hour and has 4400 km to travel. It will take him $\frac{?}{2}$ hours to complete his trip. A) 4 B) 4.5 C) 5 D) 5.5



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14.	Larry might be lying. He takes his real age, adds 10, divides by 2, subtracts 10, and multiplies by 2 to get 30, and he claims that's his age. His real age is A) 50 B) 40 C) 30 D) 20
15.	A rectangle has a perimeter of 48 and a length that is 3 times its width. The width of the rectangle is A) 6 B) 8 C) 12 D) 16
16.	My sister hates quarters! She gave me 50 quarters, so I gave her 50 pennies, 50 nickels, and 50 dimes. Now she wants the rest of her money. I owe her A) \$4.50 B) \$5.50 C) \$6.50 D) \$7.50
17.	$(8.462 \text{ rounded to the nearest tenth}) \times (7531 \text{ rounded to the nearest hundred}) =$ A) 63000 B) 63450 C) 63750 D) 64005
18.	The ratio of boys to girls in my class is 3:4. There could be $\frac{?}{2}$ students in the class. A) 120 B) 70 C) 40 D) 30
19.	Four friends each have \$1. Together with a fifth friend, the five have an average of \$10 each. How much does the fifth friend have? A) \$9 B) \$19 C) \$46 D) \$49
20.	The largest divisor of 180 that is the square of an integer is $\frac{?}{2}$ greater than the smallest divisor of 180 that is the square of an integer. A) 5 B) 27 C) 32 D) 35
21.	Woof the dog wears number 11. When I divide my number by 11, the remainder is 3. What is the remainder when I divide four times my number by 11? A) 1 B) 3 C) 7 D) 12
22.	$99 \times 88 \times 77 \times 66 \times 55 = 9 \times 8 \times 7 \times 6 \times 5 \times \frac{?}{2}$ A) 11 B) 11 ⁴ C) 11 ⁵ D) 11 ⁶
23.	The largest whole number for which $3.5 < 12 \cdot \frac{?}{2}$ is true is A) 19 B) 20 C) 21 D) 24
24.	What is the largest of 9 consecutive whole numbers whose sum is 99? A) 9 B) 11 C) 13 D) 15
25.	My house is 4 km from my sister's house, and my sister's house is 9 km from my school. The distance between my house and my school cannot be A) 4 km B) 5 km C) 8 km D) 10 km



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