

29. What is the area of a semicircular region whose diameter is 16? A) $32\pi$ B) $64\pi$ C) $128\pi$ D) $256\pi$	29.
30. If $r(N)$ means the reciprocal of $N$ , then $r(r(2)) \div r(3) \div r(4) =$ A) $\frac{2}{3}$ B) $\frac{3}{8}$ C) $\frac{1}{6}$ D) $\frac{1}{24}$	30.
31. Cupid shot his arrow 10 000 times. His success rate was $\sqrt{1}\%$ . How many of Cupid's shots were a success? A) 1    B) 10    C) 100    D) 1000	31.
32. The largest factor of 10 000 is A) 5    B) 1000    C) 5000    D) 10 000	32.
33. Today, 2 horses each chased 4 cows, each of which chased 8 pigs, each of which chased 16 chickens. No animal was chased by 2 animals. Altogether, how many animals took part in this chase? A) 30    B) 512    C) 1024    D) 1098	33.
34. If the measure of each interior angle of 9-sided polygon $P$ is less than 180, then $P$ has at most <u>?</u> different pairs of parallel sides. A) 2    B) 3    C) 4    D) 8	34.
35. Which <i>cannot</i> be the smallest of 5 consecutive integers whose product is divisible by 2, 5, and 9? A) 5    B) 4    C) 3    D) 2	35.
36. Cory averaged 85 on fifteen tests. He got two 80s, five 85s, and three 90s. What is the average of Cory's other five tests? A) 82    B) 84    C) 85    D) 86	36.
37. $\frac{2007}{2006} \div \frac{?}{?} = \frac{2006}{2007}$ A) $\frac{2007^2}{2006^2}$ B) $\frac{2006^2}{2007^2}$ C) $\frac{2 \times 2006^2}{2007^2}$ D) 1	37.
38. The least common denominator of $\frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \frac{4}{5}, \frac{5}{6}, \frac{6}{7}, \frac{7}{8}, \frac{8}{9},$ and $\frac{9}{10}$ is A) 10    B) 1260    C) 2520    D) 3 628 800	38.
39. Of the first 999 positive integers, <u>?</u> are primes or multiples of primes. A) 1    B) 499    C) 998    D) 999	39.
40. In the sum shown at the right, if $R, S, T,$ and $U$ represent digits, then $R+S+T+U$ must equal A) $2 \times (R+S)$ B) $2 \times (S+U)$ C) $2 \times (T+U)$ D) $2 \times T$	40.



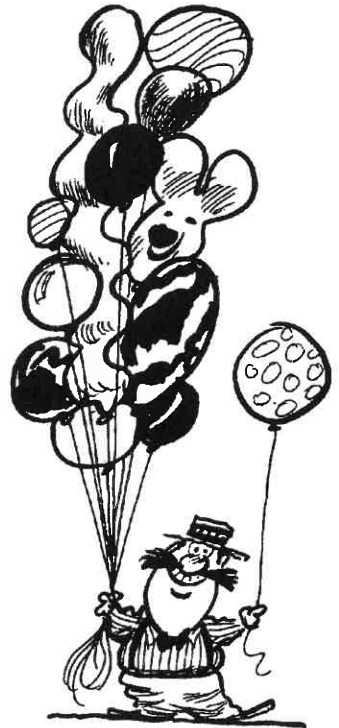
2006-2007 Annual 7th Grade Contest

Tuesday, February 20 or 27, 2007

7

Instructions

- **Time** You will have only 30 minutes working time for this contest. You might be *unable* to finish all 40 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 30 points (75% correct). Students with half that, 15 points, *should be commended!*
- **Format and Point Value** This is a multiple-choice contest. Each answer is an A, B, C, or D. Write each answer in the *Answers* column to the right of each question. A correct answer is worth 1 point. Unanswered questions get no credit. You **may** use a calculator.



The end of the contest 7

1.	By how much does 3300 exceed the sum $99+199+999+1999$ ?	A) 14 B) 9 C) 4 D) 1
2.	Round 0.2727 to the nearest thousandth.	A) 0.272 B) 0.273 C) 0.2730 D) 0.2737
3.	$4 \times 44$ has the same value as	A) $16 \times 4$ B) $12 \times 33$ C) $11 \times 8$ D) $8 \times 22$
4.	80 hundredths = $\frac{2}{\text{fifths}}$	A) 4 B) 8 C) 16 D) 20
5.	$64 \div 8 \div 4 \times 2 =$	A) 4 B) 8 C) 16 D) 64
6.	Balloons cost 3 for \$2.50 or 1 for \$1.00. For \$13.00, I can buy at most	A) 16 balloons B) 15 balloons C) 14 balloons D) 13 balloons
7.	$(5 \times 10) + (5 \times 20) + (5 \times 30) = 10 \times \frac{?}{?}$	A) $(5+50+100)$ B) $(5+20+30)$ C) $(5+10+20)$ D) $(5+10+15)$
8.	The capacity of $\frac{1}{2}$ two-liter cans is half that of 16 three-liter cans.	A) 8 B) 12 C) 16 D) 24
9.	Multiplying a number by $\frac{4}{5}$ is the same as dividing it by	A) $\frac{3}{2}$ B) $\frac{2}{3}$ C) $\frac{4}{3}$ D) $\frac{3}{4}$
10.	How many positive integral factors of 60 are multiples of 6?	A) 2 B) 3 C) 4 D) 5
11.	$(3^2+4^2+5^2) \times (5^2-4^2-3^2) =$	A) $9+16+25$ B) $6+8+10$ C) $3+4+5$ D) 0
12.	If today is Tuesday, and if I first bent over backwards 53 days ago, then on which day did I first bend over backwards?	A) Saturday B) Friday C) Wednesday D) Tuesday
13.	When I subtract the product of $\frac{1}{2}$ and $\frac{1}{4}$ from their sum, I get	A) 0 B) $\frac{8}{3}$ C) $\frac{8}{5}$ D) $\frac{4}{3}$
14.	$\frac{1}{2}$ of 20 = 20% of $\frac{?}{?}$	A) 40 B) 50 C) 80 D) 100



15.	Which of the following has an odd number of sides?	A) rhombus B) octagon C) hexagon D) pentagon
16.	Of the following, $\frac{1}{2}$ has the largest prime factor.	A) 7 B) 14 C) 19 D) 20
17.	What is the largest integer that could be the length of a side of an equilateral polygon whose perimeter is 100?	A) 20 B) 25 C) 33 D) 50
18.	What fraction of a week is 7 seconds?	A) $\frac{24}{1}$ B) $\frac{1440}{1}$ C) $\frac{3600}{1}$ D) $\frac{86400}{1}$
19.	If 1 giant apple a day keeps the doctor away, then it takes $\frac{1}{2}$ giant apples to keep the doctor away from March 1 through June 1.	A) 93 B) 92 C) 91 D) 90
20.	$1 \times 4 \times 9 = \sqrt{1 \times 2 \times 3 \times ?}$	A) 1296 B) 216 C) 36 D) 6
21.	The average of $\frac{4}{5}$ , $\frac{4}{7}$ , $\frac{4}{9}$ and $\frac{4}{11}$ equals the average of 1 and	A) 3 B) 4 C) 9 D) 15
22.	(number of dimes in \$850) = $(\frac{1}{2}) \times$ number of quarters in \$850	A) 0.25 B) 1.5 C) 2.5 D) 10
23.	If number is even, then which of the following could be odd?	A) (number) <sup>2</sup> B) $\sqrt{\text{number}}$ C) $2 \times \text{number}$ D) $\text{number} \div 2$
24.	As shown, the square at the right is divided into 8 identical isosceles triangles. How many different right angles does the figure contain?	A) 20 B) 16 C) 12 D) 8
25.	$2^3 \times 3^3 \times 5^3 = 3 \times 4 \times 5 \times 6 \times ?$	A) 100 B) 75 C) 50 D) 25
26.	I've dieted for 30 days. That's 40% of the $\frac{?}{?}$ days I'll stay on my diet.	A) 12 B) 42 C) 50 D) 75
27.	$\frac{3}{2} \times \frac{3}{2} \times \frac{3}{2} \times \frac{3}{2} \times \frac{3}{2} \times \frac{3}{2} \times \frac{3}{2} \times \frac{3}{2} =$	A) $\frac{3}{1}$ B) $\frac{3}{2}$ C) 1 D) $\frac{2}{3}$
28.	$5^4$ is $\frac{?}{?}$ % of $10^4$ .	A) 0.5 B) 6.25 C) 25 D) 50

