

<p>30. How many prime numbers less than 200 are 1 more than the square of an integer? A) 5 B) 6 C) 9 D) 14</p>	<p>30.</p>
<p>31. Pat's current age will triple in 18 years. Twice Pat's current age is A) 9 years B) 12 years C) 18 years D) 24 years</p>	<p>31.</p>
<p>32. The median of $\frac{1}{6}, \frac{1}{3}, \frac{1}{2}, \frac{1}{4}, \frac{1}{5}, \frac{1}{7}$ is A) $\frac{1}{9}$ B) $\frac{1}{4.5}$ C) $\frac{1}{3}$ D) $\frac{9}{40}$</p>	<p>32.</p>
<p>33. In a poll of more than 1 million people, exactly 16$\frac{2}{3}$% felt run-down. The exact number of people polled could have been ? million. A) 2 B) 4 C) 6 D) 8</p>	<p>33.</p>
<p>34. What fraction of a meter is $\frac{35}{4}$ cm? A) $\frac{1}{25}$ B) $\frac{7}{80}$ C) $\frac{4}{35}$ D) $\frac{35}{4}$</p>	<p>34.</p>
<p>35. $\sqrt{81} = (?)^2$ A) $\sqrt{3}$ B) 3 C) $3\sqrt{3}$ D) 9</p>	<p>35.</p>
<p>36. The least possible sum of a positive number and its reciprocal is A) 2.5 B) 2 C) 1 D) 0</p>	<p>36.</p>
<p>37. If the lengths of 3 sides of a triangle are consecutive integers, which of the following could be the perimeter of the triangle? A) 2000 B) 2001 C) 2002 D) 2003</p>	<p>37.</p>
<p>38. $(\frac{1}{2} \times \frac{1}{3}) \div (2 \times 3) = ? \times \frac{1}{3}$ A) $\frac{1}{12}$ B) $\frac{1}{72}$ C) 3 D) 36</p>	<p>38.</p>
<p>39. I drive at a speed of 40 km/hr. I can drive 50% farther in 50% less time if I increase my speed to A) 60 km/hr B) 80 km/hr C) 120 km/hr D) 160 km/hr</p>	<p>39.</p>
<p>40. How many positive even numbers are factors of $3^5 \times 2^5$? A) 5 B) 6 C) 25 D) 30</p>	<p>40.</p>



2001-2002 Annual 7th Grade Contest

Tuesday, February 19 or 26, 2002

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.

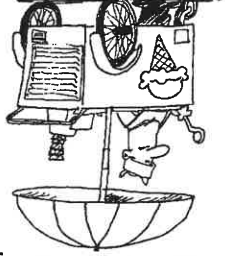


The end of the contest 7

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Solutions on Page 73 • Answers on Page 138

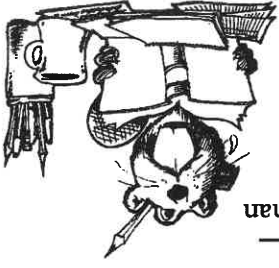
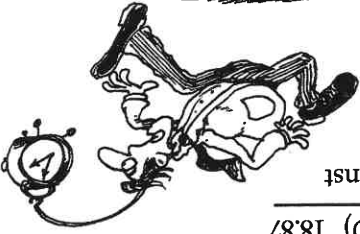
16.	If the square root of the perimeter of a square is 6, then the area of this square is A) 36 B) 64 C) 81 D) 144
17.	I sell "HELP" flags in only the following ways: 3 for \$1, 2 for 75¢, and/or 1 for 40¢. The least for which I sell 35 HELP flags is A) \$11.75 B) \$11.90 C) \$12.00 D) \$14.00
18.	$(2 \times 500) + (2 \times 501) =$ A) $2 + (500 \times 501)$ B) $2 \times (500 + 501)$ C) $(2 + 2) \times (500 + 501)$ D) $(2 \times 2) + (500 \times 501)$
19.	Which is the reciprocal of $\frac{3}{8} \times \frac{13}{18}$? A) $\frac{8}{3} \times \frac{18}{13}$ B) $\frac{13}{3} \times \frac{18}{8}$ C) $\frac{3}{8} \times \frac{18}{13}$ D) $\frac{8}{3} \times \frac{13}{18}$
20.	I'm equilateral. My perimeter is 36. My side is longest when I'm A) a triangle B) a square C) a rhombus D) a hexagon
21.	How many whole-number factors of 36 are divisible by 2? A) 5 B) 6 C) 7 D) 8
22.	Increasing the average of 20 numbers by 2 increases their sum by A) 2 B) 10 C) 22 D) 40
23.	$\frac{2+3+4}{?} = \frac{8+9+10}{(8-1)+(9-1)+(10-1)}$ A) 4 B) 6 C) 8 D) 9
24.	If 5 scoops of ice cream weigh 2 kg, then 13 scoops weigh A) $\frac{10}{13}$ kg B) 5 kg C) $\frac{5}{26}$ kg D) 7 kg
25.	Of the following, $\sqrt{4} + \sqrt{16}$ is closest in value to A) $\sqrt{12}$ B) $\sqrt{20}$ C) $\sqrt{64}$ D) $\sqrt{100}$
26.	$\frac{1}{4}$ of $\frac{1}{4}\%$ = A) $\frac{1}{16}\%$ B) $\frac{1}{8}\%$ C) $\frac{1}{4}\%$ D) 1%
27.	How long is a diameter of a circle whose area is π cm ² ? A) π cm B) 2π cm C) 1 cm D) 2 cm
28.	What is the greatest common factor of $\sqrt{16}$ and $\sqrt{64}$? A) 16 B) 8 C) 4 D) 2
29.	Divide a square of side-length 6 into four triangles by drawing both diagonals of the square. The area of one of the triangles is A) 6 B) 9 C) $9\sqrt{2}$ D) 18



Go on to the next page

7

1.	$50 + 100 + 150 + 200 = 4 \times ?$ A) 75 B) 100 C) 125 D) 133
2.	I began with \$6.80 in dimes. I made 10 piles of dimes, each with the same number of dimes. Of the following, which could have been the number of dimes left over? A) 12 B) 24 C) 36 D) 48
3.	Round the sum $(0.999 + 8.88)$ to the nearest hundredth. A) 1.89 B) 9.879 C) 9.88 D) 18.87
4.	If I finished my 17-hour race against the clock at midnight, I began at A) 5 A.M. B) 7 A.M. C) 5 P.M. D) 7 P.M.
5.	$4^2 + 2^2 = 5^2 - ?$ A) 1 B) 2 C) 4 D) 5
6.	Of the following, which has the greatest value? A) 10^{10} B) 10×100 C) 10×10 D) 10×1^{10}
7.	$3^3 + 3^2 + 3^1 =$ A) 3×5 B) 3×6 C) 3×11 D) 3×13
8.	Folding a square in half along one of its diagonals forms two A) triangles B) rhombuses C) squares D) rectangles
9.	$\frac{2}{1} \times 1$ day = $? \times 1$ week A) $\frac{7}{1}$ B) $\frac{7}{2}$ C) $\frac{14}{1}$ D) $\frac{28}{1}$
10.	Ten million divided by 100 thousand equals A) 10 B) 100 C) 1000 D) 10000
11.	A ream of paper contains 500 sheets. A case of 20 reams contains A) 25 sheets B) 500 sheets C) 1000 sheets D) 10000 sheets
12.	Of the following, which has the greatest hundredths' digit? A) 79.68 B) 86.79 C) 97.86 D) 678.9
13.	When I multiply 111 by 999, the product will contain $?^2$ digits. A) 6 B) 5 C) 4 D) 3
14.	The number 40 is 30 more than 40 less than A) 70 B) 50 C) 30 D) 10
15.	I read 3 science fiction books, 4 math books, and 1 cookbook. What percent of these books were non-fiction? A) 37.5% B) 50% C) 60% D) 62.5%



Go on to the next page

6