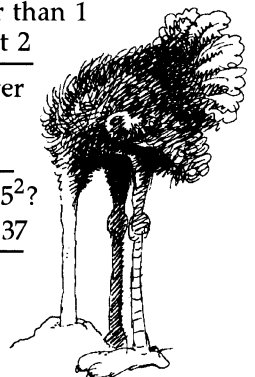
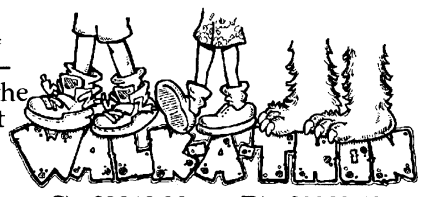
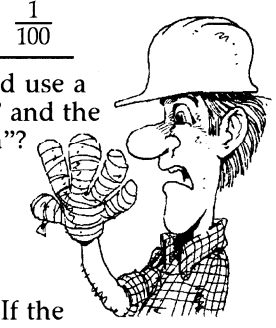


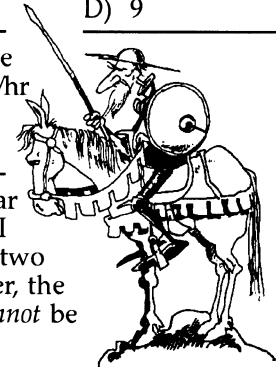
1. $111\ 111 + 222\ 222 + 333\ 333 + 444\ 444 = 222\ 222 \times ?$ A) 1      B) 4      C) 5      D) 10	1.
2. In which of the following divisions is the remainder equal to 2? A) $257 \div 5$ B) $228 \div 6$ C) $195 \div 3$ D) $176 \div 4$	2.
3. 6 twos + 8 threes = 2 sixes + ? eights A) 3      B) 6      C) 8      D) 12	3.
4. $2 + (10 \times 2) + (100 \times 2) + (1000 \times 2) =$ A) 224      B) 2000      C) 2220      D) 2222	4.
5. Of the following fractions, which represents a whole number? A) $\frac{182}{7}$ B) $\frac{172}{12}$ C) $\frac{189}{17}$ D) $\frac{178}{21}$	5.
6. $2^2 + 2^2 + 2^2 + 2^2 = 2^2 \times ?$ A) $2^1$ B) $2^2$ C) $2^3$ D) $2^4$	6.
7. Of the amounts listed below, the one with the largest tens' digit is exactly what we earned on our Walkathon. That amount is A) \$1231.21    B) \$1123.03    C) \$3010.30    D) \$2302.12	7.
8. It's possible for a February to have ? Tuesdays, but not more. A) 3      B) 4      C) 5      D) 6	8.
9. Find the missing number: $\frac{1+2}{3} + \frac{4+5}{6} = \frac{7+8}{9-?}$ A) 0      B) 3      C) 6      D) 12	9.
10. A rectangle whose width is 3 has the same area as a square whose side is 9. What is the perimeter of this rectangle? A) 27      B) 36      C) 60      D) 81	10.
11. The product of 2 different numbers, both greater than 0, must be A) greater than 0      B) greater than 1 C) greater than 2      D) at least 2	11.
12. Ozzie hid his head in the sand 98 hours after 11 P.M. Sunday. Ozzie hid his head on a A) Tues.    B) Wed.    C) Thurs.    D) Fri.	12.
13. What is the largest prime factor of $2^2+3^2+5^2$ ? A) 5      B) 13      C) 19      D) 37	13.
14. The reciprocal of the smallest prime is A) 0      B) $\frac{1}{2}$ C) 1      D) 2	14.
15. $(20 \times 100) - (20 \times 10) - (20 \times 1) =$ A) $20 \times 111$ B) $20 \times 109$ C) $20 \times 91$ D) $20 \times 89$	15.



16. 4.5 hours is equivalent to each of the following <i>except</i> A) $\frac{3}{16}$ day    B) 270 min    C) 16 200 sec    D) $\frac{3}{100}$ week	16.
17. What fraction of 1 m is 15 cm? A) $\frac{1}{10}$ B) $\frac{3}{20}$ C) $\frac{1}{15}$ D) $\frac{10}{15}$	17.
18. How many thousandths, when added together, equal one tenth? A) 100      B) 1000      C) 10 000      D) $\frac{1}{100}$	18.
19. When 250 adults were asked if they could use a hammer, 40% said "Yes!," 38% said "No!," and the rest said "Ouch." How many said "Ouch"? A) 22    B) 25    C) 55    D) 195	19.
20. $\sqrt{25} - 16 =$ A) 9      B) 3      C) 1      D) -11	20.
21. Jack is as old now as Jill was 3 years ago. If the sum of their ages is 43, how old will Jill be in 2 years? A) 20      B) 22      C) 23      D) 25	21.
22. On 5 math tests, I averaged 95. The sum of my 5 test scores was A) 95      B) 100      C) 475      D) 495	22.
23. What is the reciprocal of $(1 + \frac{7}{8})$ ? A) $\frac{8}{15}$ B) $1 + \frac{8}{7}$ C) $\frac{15}{8}$ D) $\frac{7}{15}$	23.
24. Whenever the value of my dimes is one-fifth the value of my quarters, I will have ? as many dimes as quarters. A) one-half    B) one-fifth    C) two-thirds    D) twice	24.
25. What is the average number of days per month for the year 2000? A) 29      B) 30      C) 30.5      D) 31	25.
26. How many of the first 10 whole numbers are factors of 162? A) 6      B) 5      C) 4      D) 3	26.
27. Grandpa's age in years equals his dog's age in months. Grandpa is 55 years older than his dog. Grandpa's dog is ? months old. A) 48      B) 55      C) 60      D) 66	27.
28. 30 is 0.1% of A) 3      B) 300      C) 3000      D) 30 000	28.
29. What number is midway between 1234567 and 7654321? A) 3765432    B) 4321321    C) 4444444    D) 3456789	29.



<p>30. What is the area of a square whose perimeter is 3 cm?                  A) <math>\frac{9}{16}</math> cm<sup>2</sup>    B) <math>\frac{3}{2}</math> cm<sup>2</sup>    C) 3 cm<sup>2</sup>    D) 9 cm<sup>2</sup></p>	<p>30.</p>
<p>31. <math>34\,592\,867\,544^2 - 34\,592\,867\,543^2 = 34\,592\,867\,543 + ?</math>                  A) 0    B) 34592867542    C) 34592867543    D) 34592867544</p>	<p>31.</p>
<p>32. If 5 oranges cost as much as 2 grapefruits, and 1 grapefruit costs as much as 3 apples, then 10 oranges cost as much as <u>?</u> apples.                  A) 6    B) 9    C) 10    D) 12</p>	<p>32.</p>
<p>33. The area of the <i>Winner's Circle</i> is 4 times that of the other circle, so a radius of the <i>Winner's Circle</i> is <u>?</u> as long as a radius of the other.                  A) exactly    B) twice                  C) one-fourth    D) 4 times</p>	<p>33.</p>
<p>34. Of the following, which is largest?                  A) <math>\sqrt{\frac{1}{2}}</math>    B) <math>\sqrt{\frac{1}{4}}</math>    C) <math>\frac{1}{4}</math>    D) <math>(\frac{1}{2})^2</math></p>	<p>34.</p>
<p>35. The second hand of a clock makes <u>?</u> revolutions every 24 hours.                  A) 60    B) 1440    C) 3600    D) 86 400</p>	<p>35.</p>
<p>36. All the following have 2, 3, 5, 6, 10, 15, and 30 as factors <i>except</i>                  A) 543 420    B) 85 030    C) 72 630    D) 53 430</p>	<p>36.</p>
<p>37. If I save \$1 on odd-numbered days every month, and \$2 on even-numbered days, how much will I save in the year 2000?                  A) \$16    B) \$538    C) \$545    D) \$549</p>	<p>37.</p>
<p>38. The ones' digit of the largest nine-digit perfect square is                  A) 0    B) 1    C) 4    D) 9</p>	<p>38.</p>
<p>39. Each km of a 5 km race, my horse's average speed decreased 1 km/hr. If I averaged 5 km/hr at first, it took me <u>?</u> minutes to finish.                  A) 120    B) 137    C) 216    D) 685</p>	<p>39.</p>
<p>40. I make a straight cut through a rectangular piece of paper and get two pieces. When I make a straight cut through one of these two pieces, I then have three pieces. Altogether, the number of edges on these three pieces <i>cannot</i> be                  A) 8    B) 9    C) 10    D) 11</p>	<p>40.</p>



The end of the contest 7



1999-2000 Annual 7th Grade Contest

February, 2000

Instructions

7

- **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.
- **About Math League Contests** Each year the Math League sponsors math contests for grades 4, 5, 6, 7, 8, Algebra Course 1, and High School. Twelve books of past contests, *Grades 4, 5, & 6 (Volumes 1, 2, 3, & 4)*, *Grades 7 & 8 (Volumes 1, 2, 3, & 4)* and *High School, (Volumes 1, 2, 3, & 4)* are available, for \$12.95 each volume (\$19.95 Canadian), from Math League Press, P.O. Box 17, Tenafly, N.J. 07670-0017. Visit us on the web at <http://www.MathLeague.com/> or call (201) 568-6328 for more information on our books, software, and math contests.

