

2012 4th  
2001-2002 5TH GRADE CONTEST SOLUTIONS

Answers

1.  $30 + 31 + 32 = (29+1) + (30+1) + (31+1) = 29 + 30 + 31 + 3.$   
A) 0 B) 1 C) 2 D) 3

1.  
D

2.  $(3 \times 4 \times 5 \times 6) \div 15 = [(3 \times 5) \times (4 \times 6)] \div 15 = [15 \times (24)] \div 15 = 24.$   
A) 8 B) 10 C) 12 D) 24

2.  
D

3. Don't count the first 5 people or the last person on line, a total of 6 people. That leaves a total of  $44 - 6 = 38$  people.  
A) 34 B) 38 C) 39 D) 49

3.  
B

4.  $7 \times 1 + 7 \times 2 + 7 \times 3 = 7 \times (1 + 2 + 3) = 7 \times 6.$   
A) 6 B) 5 C) 4 D) 3

4.  
A

5. 20 hundreds + 2 ones =  $20 \times 100 + 2 \times 1 = 2000 + 2 = 2002.$   
A) 202 B) 222 C) 2002 D) 2020

5.  
C

6. Each book is shared by 2 students, so 40 need  $40 \div 2 = 20$  books.  
A) 20 books B) 40 books C) 60 books D) 80 books

6.  
A

7. To climb 300 trees, at 12 trees per day, I need  $300 \div 12 = 25$  days.  
A) 12 B) 20 C) 25 D) 36

7.  
C

8.  $45 \div 3 = 15 = 3 \times 5.$   
A) 20 B) 15 C) 10 D) 5

8.  
D

9. Of Early Bird's 36 worms, 3 times as many were fat as were thin. Split the 36 worms into 4 piles of 9 worms. Put fat worms in 3 of the piles. There are  $3 \times 9 = 27$  fat worms.  
A) 9 B) 24 C) 27 D) 30



9.  
C

10. Since  $180 \div 3 = 60 = 3 \times 20$ , it's the one that's a multiple of 3.  
A)  $120 \div 3$  B)  $150 \div 3$  C)  $180 \div 3$  D)  $210 \div 3$

10.  
C

11.  $48 = 1 \times 48 = 2 \times 24 = 3 \times 16 = 4 \times 12 = 6 \times 8.$  The product of 4 and 12 is 48, their difference is 8, and their sum is  $4 + 12 = 16.$   
A) 12 B) 16 C) 18 D) 24

11.  
B

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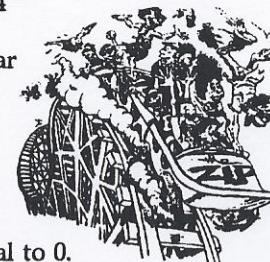
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12. 1 day +  $(24 + 24 + 12)$  hours = 3 days + 12 hours  
A) 1 B) 12 C) 20 D) 24

12.  
B

13. There were as many kids in the first car of the roller coaster as the largest possible sum of two different one-digit numbers. There were  $9 + 8 = 17$  kids.  
A) 16 B) 17 C) 18 D) 19



13.  
B

14. Any number with a factor of 0 is equal to 0.  
A)  $100\,000 \times 0$  B)  $1000 \times 1000$  C)  $100 \times 1000$  D)  $10 \times 10\,000$

14.  
A

15.  $(\# \text{ of sides of a triangle}) \times (\# \text{ of sides of an octagon}) = 3 \times 8 = 24 = 4 \times 6 = (\# \text{ of sides of a square}) \times (\# \text{ of sides of a hexagon}).$   
A) triangle B) rectangle C) pentagon D) hexagon

15.  
D

16. Easiest way: each of the pairs (1,39), (9,31), (11,29), (19,21) averages 20.  
A) 19 B) 20 C) 21 D) 40

16.  
B

17. Value of 12 =  $12 \times 25\text{¢} = \$3 < \$12 =$  value of 120 dimes.  
A) 3 dollars B) 60 nickels C) 120 dimes D) 300 pennies

17.  
C

18. A triangle, the polygon with the fewest sides, has 3 sides.  
A) 1 B) 2 C) 3 D) 4

18.  
C

19.  $9999 \div 99 = 101$ ; 99 less than that is  $101 - 99 = 2.$   
A) 0 B) 2 C) 200 D) 9999

19.  
B

20. Use just the ones' digits. Since  $9 \times 9 \times 9 = 729$ , the answer is 9.  
A) 9 B) 7 C) 3 D) 1

20.  
A

21. In 8 hrs = 480 mins = ten 48-minute periods, I'll eat  $(18 \times 12) \times 10 = 2160$  bowls.  
A) 108 B) 180 C) 216 D) 2160

21.  
D

22.  $1000 \div 7$  leaves remainder 6; so  $994 \div 7$  leaves remainder 0, and  $9 + 9 + 4 = 22.$   
A) 7 B) 18 C) 21 D) 22

22.  
D



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	Answers
<p>23. 1 dime + 3 nickels = 25¢, 2 dimes + 4 nickels = 40¢, and 3 dimes + 5 nickels = 55¢. The value <i>cannot</i> be choice D. A) 25¢   B) 40¢   C) 55¢   D) 75¢</p>	<p>23. D</p>
<p>24. The 2002nd even number is <math>2 \times 2002</math>. Subtract 1. A) 4001   B) 4003   C) 4004   D) 4005</p>	<p>24. B</p>
<p>25. A square has 4 sides. <i>Both</i> pairs of its opposite sides are parallel. A) 4   B) 3   C) 2   D) 1</p>	<p>25. C</p>
<p>26. Since 20 letters appear before the letter "U," and 5 letters appear after it, the correct answer is choice D. A) E   B) F   C) T   D) U</p>	<p>26. D</p>
<p>27. In a magic square, the sum of the numbers in each row, column, and major diagonal is called the <i>magic sum</i>. To increase the sum of each row, column, and diagonal by a total of 15, increase each of the 3 numbers added by <math>15 \div 3 = 5</math>.</p>	<p>27. A</p>
<p>28. The possible products are 6, 7, 8, 9, 10, 12, 14, 16, 18, 20, 21, 24, 27, 28, 30, 32, 35, 36, 40, 45, 50. There are 21 different products. The 4 duplicates are <math>6 \times 3 = 9 \times 2</math>, <math>6 \times 4 = 8 \times 3</math>, <math>3 \times 10 = 5 \times 6</math>, and <math>4 \times 10 = 5 \times 8</math>. A) 5   B) 10   C) 21   D) 25</p>	<p>28. C</p>
<p>29. The quotient <math>189 \div 15</math> has a remainder of 9, not 3. A) 15   B) 31   C) 62   D) 186</p>	<p>29. A</p>
<p>30. Each of the 300 students in my school played miniature golf exactly 2 of the past 5 nights. Average # of students per night, over 5 nights = <math>(300 \times 2) \div 5 = 120</math>. A) 100   B) 120   C) 150   D) 600</p>	<p>30. B</p>



4	9	2
3	5	7
8	1	6



The end of the contest **5**

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