

2002-2003 5TH GRADE CONTEST SOLUTIONS

Answers

1. $14+15+16-(4+5+6) = (14-4)+(15-5)+(16-6) = 10+10+10 = 30$. A) 7 B) 10 C) 20 D) 30	1. D
2. $1 \times 25¢ + 2 \times 10¢ + 3 \times 5¢ + 4 \times 1¢ = 25¢ + 20¢ + 15¢ + 4¢ = 64¢$. A) 41¢ B) 64¢ C) 75¢ D) \$1.41	2. B
3. My sea serpent, 39 m long, painted rings, each 3 m wide, on its body. That's at most $39 \div 3 = 13$ rings. A) 3 B) 9 C) 13 D) 117	3. C
4. $(2 \times 4 \times 6 \times 8) \div 32 = (2 \times 6 \times 32) \div 32 = 2 \times 6$. A) 6 B) 8 C) 10 D) 12	4. D
5. Eating 3 each hour, in 24 hours he eats 3×24 bags = 72 bags. A) 8 bags B) 21 bags C) 27 bags D) 72 bags	5. D
6. The quotient $42 \div 2 = 21$ equals the product $3 \times 7 = 21$. A) 3×6 B) 3×7 C) 3×14 D) 3×21	6. B
7. I own 16 leashes. I must own 8 dogs, since $16 \div 2 = 8$. A) 8 B) 16 C) 17 D) 32	7. A
8. $800 - 80 = 720$. A) 820 B) 792 C) 720 D) 700	8. C
9. # sides: A) 6 sides B) no sides C) 5 sides D) 3 sides. A) hexagon B) circle C) pentagon D) triangle	9. A
10. Since 150 4th graders need 3 buses, 200 5th graders need 4 buses, and 250 6th graders need 5 buses, we need $3+4+5 = 12$ buses. A) 3 B) 7 C) 9 D) 12	10. D
11. $(2 \times 4) + (3 \times 4) + (4 \times 4) + (5 \times 4) = (2+3+4+5) \times 4$. A) 8 B) 14 C) 20 D) 120	11. B
12. 31 days before June 1 is May 1; 29 days before May 1 is April 2. A) March 31 B) April 1 C) April 2 D) April 3	12. C
13. Since $135 \div 45 = 3$, it follows that $136 \div 45$ is greater than 3. A) $162 \div 54 = 3$ B) $174 \div 87 = 2$ C) $186 \div 63 < 3$ D) $136 \div 45 > 3$	13. D

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14. The 10 thousands' digit of 987 654 is 8; 1 less than 8 is $8-1 = 7$. A) 4 B) 5 C) 7 D) 8	14. C
15. The average value of my 5 heart sculptures is $\$2 \div 5 = 200¢ \div 5 = 40¢$. A) 4¢ B) 10¢ C) \$10 D) 40¢	15. D
16. $3 \times 20 \times 100 = 3 \times 10 \times 2 \times 100 = 30 \times (2 \times 100)$. A) 2×100 B) 2×10 C) 20×100 D) 200×100	16. A
17. If a diameter is 6 m long, a radius is $(6 \text{ m}) \div 2 = 3 \text{ m}$ long. A) 3 m B) 6 m C) 12 m D) 18 m	17. A
18. $80 \times 1 = 80 = 80 \div 1$. (Note: No number may be divided by 0.) A) 0 B) 1 C) 2 D) 80	18. B
19. 8 hrs. before 7:07 P.M. is 11:07 A.M.; 8 mins. earlier is 10:59 A.M. A) 3:15 A.M. B) 5:15 A.M. C) 9:59 A.M. D) 10:59 A.M.	19. D
20. There are 12 girls and 18 boys in my class. A) 12 B) 18 C) 20 D) 24	20. B
21. $111 \times 444 = 49284$; the product has only one odd digit, the 9. A) zero B) one C) three D) nine	21. B
22. The board has $9 \times 9 = 81$ squares in all. If there were an even number of squares, half would be dark. Since the 81 squares alternate in color, at most 41 are of either color. A) 38 B) 39 C) 40 D) 41	22. D
23. Ted turned 10 years old yesterday. Averaging his ages on his 5 most recent birthdays, I get $(6+7+8+9+10) \div 5 = 8$. A) 6 B) 7 C) 8 D) 9	23. C

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24. Since one of the factors is 10, the product's ones' digit is a 0.
A) 2 B) 4 C) 8 D) 0

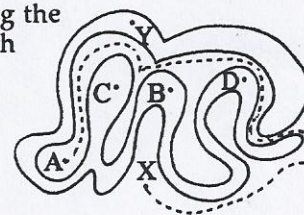
25. All 66 gloves are black or blue. If twice as many are black as are blue, my mom has 44 black and 22 blue gloves. The number of pairs of blue gloves is $22 \div 2 = 11$.
A) 11 B) 22 C) 44 D) 132



26. Half the 60 coins are nickels; one-third are dimes. The 20 dimes are worth \$2.00. The 30 nickels are worth only \$1.50, which is 50¢ less.
A) 50¢ less B) 50¢ more C) 10¢ less D) 10¢ more

27. Al's plant had 10 flowers at first. Since 8 wilted, only 2 of the original flowers remain. In place of the 8 that wilted are $8 \times 2 = 16$ new flowers. In all, he has $2 + 16 = 18$ flowers.
A) 16 B) 18 C) 20 D) 26

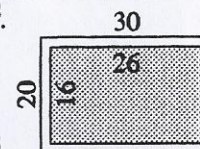
28. Without lifting your pencil or folding the paper, it's not possible to draw a path connecting points X and Y without crossing the curve. As shown by the dotted path, X and A can be connected without crossing the curve.
A) A B) B C) C D) D



29. In 60 minutes, I burp $6 \times 3 = 18$ times and you burp $5 \times 4 = 20$ times. Altogether, we burp $18 + 20 = 38$ times every 60 minutes, or 19 times every 30.
A) 7, 22 B) 11, 15
C) 13, 20 D) 19, 30



30. The area of the room is $(20 \times 30) \text{ m}^2 = 600 \text{ m}^2$. The dimensions of the unpainted part are 16 by 26, so its area is 416 m^2 . The area of the strip is $(600 - 416) \text{ m}^2 = 184 \text{ m}^2$.
A) 96 m^2 B) 100 m^2 C) 184 m^2 D) 200 m^2



The end of the contest 5

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