

Cullman Middle School Math Tournament
2013 6th Grade Test

1. Find the sum of the GCF of 12 and 16 and the LCM of 6 and 15.
A. 51 B. 94 C. 120 D. 34
2. Simplify. $4 - 3(12) + 15 \div (-3)$
A. -9 B. 9 C. -37 D. -27
3. A set of three whole numbers has a mode of 8 and a mean of 13. What is the sum of the largest number in the set and the range?
A. 38 B. 70 C. 18 D. 44
4. Evaluate $2^{10} + 3^5 - 4^0$
A. 31 B. 34 C. 1263 D. 1266
5. What is the 60th letter in this series of letters? Z, Y, Y, X, X, X, W, W, W, W,...
A. N B. O C. P D. Q
6. What is the area of a rectangle if the length is two and one-third times longer than a width of 12 meters.
A. 48 m² B. 216 m² C. 100 m² D. 336 m²
7. Kacie goes to American Eagle carrying \$53.40. She buys a \$12.30 shirt and a \$25.10 skirt. She gives half of what she has left to Charity. How much does Kacie have left?
A. \$5.10 B. \$8.00 C. \$4.00 D. \$2.30
8. Katie is 3 years older than her brother. Her father is 10 years more than 3 times her brother's age. If her father is 40 years old, how old is Katie?
A. 10 B. 11 C. 13 D. 19
9. Add these Roman Numerals. XXIII + XL + XVIII
A. LXXXI B. XCVI C. XXCI D. XLXLI
10. Caroline spent $\frac{7}{10}$ of an hour talking on the phone, then spent $\frac{1}{2}$ of an hour reading Math Mania magazine. If she stopped reading at 5:38 pm, at what time did she start talking on the phone?
A. 4:26 pm B. 4:50 pm C. 5:10 pm D. 4:08 pm

11. Collin paid for a purchase with a ten dollar bill. He received two ones, one quarter, one nickel, and three pennies as change. What was the total cost of his purchase?
 A. \$8.77 B. \$7.67 C. \$8.67 D. \$7.77
12. Simplify. $-5(-7) + 5(-9) - (-5)$
 A. 15 B. -75 C. -85 D. -15
13. Evaluate $3.14k + 3.14$ if $k = 3.14$
 A. 989.1 B. 98.91 C. 129.996 D. 12.9996
14. Write the sum in standard notation. $8.06 \times 10^4 + 9.8 \times 10^3$.
 A. 178,600 B. 17,860,000 C. 90,400 D. 9,040
15. If $7^x = 49$ and $2^y = 32$, find $x + y$.
 A. 5 B. 6 C. 7 D. 8
16. If Ann Carol drinks 8 glasses of water every day and an average glass holds 12 fluid ounces of water, how many quarts will she drink each day?
 A. 1 B. 2 C. $2\frac{1}{2}$ D. 3
17. Cole wants to have an average of 90. He made a 96 and an 81 on his first two tests. What score must he make on the next test?
 A. 96 B. 90 C. 93 D. 177
18. Given the sequence 1, 4, 2, 7, 5, 12, 10, A, B, ..., find the product of A and B.
 A. 323 B. 36 C. 263 D. 2
19. An isosceles trapezoid has bases of 8 in and 14 in with a height of 4 in. What is the perimeter of the trapezoid?
 A. 10 in.. B. 22 in. C. 32 in. D. 44 in.
20. Find the product of the reciprocals of $2\frac{1}{2}$, 3 and $\frac{1}{4}$.
 A. $3\frac{1}{3}$ B. $\frac{8}{15}$ C. $1\frac{7}{8}$ D. $4\frac{4}{5}$
21. By how much does $4^2 + 4^3 + 5^2$ exceed the product of 4, 5 and 5?
 A. 55 B. 91 C. 5 D. 205
22. Find the surface area of a hemisphere with diameter 4 in.
 A. 8π B. 12π C. 16π D. 48π

23. Lydia gave $\frac{1}{4}$ of her Great American Cookie to Brooke, one-third to Anna, $\frac{1}{6}$ to Charity and $\frac{1}{9}$ to Callie? How much of the cookie did she have left?

- A. $\frac{31}{36}$ B. $\frac{1}{9}$ C. $\frac{4}{21}$ D. $\frac{5}{36}$

24. Speedy runs $3\frac{1}{2}$ miles each day. How many miles did he run in 2012?

- A. 1,260 miles B. 1,281 miles C. $1227\frac{1}{2}$ miles D. 105 miles

25. At the Bearcat Bus Stop, the bus let off 5 passengers and picked up 7 passengers. At the next stop, the bus let off 3 and picked up 5. At the last stop, the bus picked up 12 passengers and let off 6. If there were 22 passengers left on the bus, how many were on the bus before the Bearcat Bus Stop?

- A. 30 B. 34 C. 25 D. 12

Tiebreaker 1: Add these Roman Numerals and write as an Arabic Numeral.

$$\text{VII} + \text{XXI} + \text{XLI} + \text{XIV}$$

Tiebreaker 2: Multiply $\frac{1}{2} \times 1\frac{1}{4} \times \frac{2}{3} \times 1\frac{1}{2} \times \frac{3}{4} \times 2 \times 1\frac{1}{3} \times \frac{4}{5}$

Tiebreaker 3: Simplify. $\frac{12! + 13!}{12!}$

Turn in the pink Scantron answer sheet to the test monitor.

You may keep the test.

Thanks for coming to our tournament today. Hope you have a great day!