



MONTANA COUNCIL OF TEACHERS OF MATHEMATICS
2013 MATH CONTEST
7th GRADE TEST

DIRECTIONS: DO NOT WRITE ON THIS TEST. Place the best answer for each question on the separate answer sheet.

1. Solve: $3x + 9 = 54$
(A) 21 (B) 15 (C) 9 (D) 18
2. $3 + -4 * 7$
(A) 49 (B) -49 (C) -25 (D) -7
3. If the sum of the measures of two of the angles in a right triangle is 130 degrees, what is the measure of the smallest angle?
(A) 20° (B) 30° (C) 40° (D) 50°
4. Of the following, which number is the largest value?
(A) 600 hundredths (B) 50 tenths (C) 4 (D) 3000 thousandths
5. The Smith family travelled 594 miles from Alzada, Montana to Yaak, Montana on a cross state trip of Montana. If at 1:00PM they have travelled $\frac{5}{9}$ of the distance to Yaak, how many miles from their destination are they?
(A) 330 miles (B) 66 miles (C) 443 miles (D) 264 miles
6. I'm equilateral. My perimeter is 48. My side is longest when I am a
(A) rhombus (B) triangle (C) pentagon (D) square
7. Two different diameters of the same circle cannot
(A) be perpendicular
(B) be parallel
(C) equal in length
(D) have a point in common
8. $(2 - \frac{1}{2}) \cdot (2 - \frac{2}{3}) \cdot (2 - \frac{3}{4}) \cdot (2 - \frac{4}{5}) \cdot (2 - \frac{5}{6}) =$
(A) $\frac{1}{8}$ (B) $1\frac{1}{2}$ (C) 2 (D) $3\frac{1}{2}$
9. A book cost \$8.95. It is on sale for 15% off. What is the sale price of the book?
(A) \$7.61 (B) \$8.80 (C) \$6.71 (D) \$1.34
10. What digit is in the millionths place of 654321.123456789?
(A) 4 (B) 5 (C) 6 (D) 7
11. Solve: $13 = 11 + \frac{y}{3}$
(A) 28 (B) 6 (C) 9 (D) 18

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12. After retiring, Linda has \$5 in her pocket. She substitute teaches for x hours, and earns \$8 an hour. If she leaves school with \$61, how many hours did she substitute teach?
(A) 6 hours (B) 7 hours (C) 8 hours (D) 9 hours
13. Jennifer will take 5 math tests this grading period. She must have an 80% average to participate on the school's Ping-Pong team. Her mean for the first 4 tests is 77%. What is the lowest score she can get on the last test and still play ping-pong?
(A) 92% (B) 80% (C) 100% (D) 85%
14. You and three friends are ordering a pizza. The cost of the pizza is \$18.50 and you have a coupon for \$1.50 off. If you want to divide the cost equally, how much should each of you pay?
(A) \$5.67 (B) \$4.63 (C) \$6.17 (D) \$4.25
15. Solve: 2 tenths – 2 hundredths
(A) 0.18 (B) 1.98 (C) 0.98 (D) 1.80
16. Of the following, which doesn't simplify to $\frac{3}{5}$?
(A) $\frac{12}{20}$ (B) $\frac{15}{25}$ (C) $\frac{33}{50}$ (D) $\frac{24}{40}$
17. The perimeter of rectangle is 36 feet. The length of one side is 3 feet. Find the area of the rectangle?
(A) 15 square ft (B) 45 square ft (C) 12 square ft (D) 108 square ft
18. If an equilateral triangle's side lengths are integers, its perimeter could be
(A) 11 (B) 22 (C) 33 (D) 44
19. What time is it 456 minutes after 2:22 PM?
(A) 6:78 PM (B) 9:28 PM (C) 7:36 PM (D) 9:58 PM
20. $1 + \frac{2}{3 + \frac{4}{5}}$
(A) $1\frac{10}{19}$ (B) $8\frac{3}{5}$ (C) $6\frac{4}{5}$ (D) $2\frac{3}{7}$
21. $3^3 - 2^3 - 1^3 =$
(A) 18 (B) 2 (C) -3 (D) 1
22. What is the sum of all of the whole number factors of 12?
(A) 16 (B) 28 (C) 27 (D) 21
23. Which of these common fractions is the largest?
(A) $\frac{3}{8}$ (B) $\frac{1}{3}$ (C) $\frac{2}{5}$ (D) $\frac{5}{16}$
24. What is the greatest common factor of 42 and 70?
(A) 7 (B) 14 (C) 21 (D) 210
25. What is the intersection of two planes called?
(A) point (B) line (C) ray (D) plane crash

7th GRADE TEST 2013 Answer Key

1. B
2. C
3. C
4. A
5. D
6. B
7. B
8. D
9. A
10. C
11. B
12. B
13. A
14. D
15. A
16. C
17. B
18. C
19. D
20. A
21. A
22. B
23. C
24. B
25. B