



MONTANA COUNCIL OF TEACHERS OF MATHEMATICS
2011 MATH CONTEST

POTLUCK

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

- A bell rings every 2 seconds and a bird chirps every 3 seconds. If the ring and the chirp occur together right now, they will also occur together in
a.) 40 seconds b.) 41 seconds c.) 42 seconds d.) 43 seconds
- A parallelogram is a trapezoid:
a.) always b.) sometimes c.) never
- Express 4.375 as a mixed number.
a.) $4\frac{3}{8}$ b.) $4\frac{3}{7}$ c.) $4\frac{37}{50}$ d.) $\frac{4375}{1000}$
- If 14 *whosits* equals 35 *whatsits*, then 50 *whatsits* equals
a.) 125 *whosits* b.) 70 *whosits* c.) 20 *whosits* d.) 7 *whosits*
- Tony saved \$5 the first week, \$8 the second week, and \$11 the third week. If he continues this pattern, how much will he save in the 8th week?
a.) \$26 b.) \$29 c.) \$23 d.) \$32
- A triangle has angles of 71° and 62°. Which of the following best describes the triangle?
a.) acute scalene b.) obtuse scalene c.) acute isosceles d.) obtuse isosceles
- The length of a picture frame is 2 inches greater than its width. If the area of the frame is 143 square inches, what is its width?
a.) 10 inches b.) 11 inches c.) 12 inches d.) 13 inches
- What is the mean of the following test scores: 98, 90, 82, 88, 90, 86
a.) 89 b.) 90 c.) 98 – 82 d.) 88
- Monday, each cookie costs 25¢. Tuesday, I can buy 6 cookies for \$1. For \$6, I can buy how many more cookies on Tuesday than on Monday?
a.) 2 b.) 12 c.) 24 d.) 36
- Mark needs to work five-sixths of a year to pay off his car loan. If Mark begins working on March 1, at the end of what month will he first be able to pay off his loan?
a.) June b.) August c.) October d.) December
- Jane gets \$3.50 allowance weekly. She donates 1/7 of it to charity and spends 1/7 of it on lunches. If she saves the rest, how many weeks will it take her to save \$210?
a.) 60 b.) 75 c.) 84 d.) 100
- The tens digit is four times the ones digit in a certain number. If the sum of the digits is 10, what is the number?
a.) 93 b.) 82 c.) 41 d.) 28

POTLUCK 2011 page 2

13. Bill walked 8 blocks due east then turned and walked 6 blocks due north. He then walked directly back to the starting point. If his path traced out a right triangle, what was the total distance he walked?
a.) 10 blocks b.) 24 blocks c.) 21 blocks d.) 28 blocks
14. At the Belltower School, 99% of the 100 students are girls, but only 98% of the students in grade 8 are girls. Which of the following could be the number of students in grade 8 who are girls?
a.) 98 b.) 97 c.) 49 d.) 48
15. $\frac{5}{12}$ as a percent is
a.) 2.4% b.) $41\frac{2}{3}\%$ c.) 24% d.) 51.2%
16. Solve for p in the following equation: $2.5p + 6 = 18.5$
a.) $p = 5$ b.) $p = 10$ c.) $p = 15$ d.) $p = 20$
17. I phoned my mom to help me answer this, the final question on a quiz show: How many integers equal their own squares? Mom said, “_____”. She was right!
a.) zero b.) one c.) two d.) three
18. It is 10 miles from Sarah’s house into town. If her car gets 21 miles per gallon, and she has 12 gallons of gas in her car, how many round trips can she make from her house to town and back again?
a.) 12 b.) 35 c.) 11 d.) 5
19. Evaluate the expression: $|-14| + (-5)$
a.) -19 b.) 19 c.) 9 d.) -9
20. A regular polygon is always
a.) square b.) equilateral c.) scalene d.) isosceles
21. Dennis has fourteen stamps, some of which are worth 34 cents each and some of which are worth 21 cents each. If the total value of all the stamps is \$3.72, how many are worth 34 cents?
a.) 8 stamps b.) 10 stamps c.) 7 stamps d.) 6 stamps
22. Given a spinner with the numbers one through eight, what is the probability that you will spin an even number or a number greater than four?
a.) $\frac{1}{4}$ b.) $\frac{1}{2}$ c.) $\frac{3}{4}$ d.) 1
23. If $F = \frac{9}{5}C + 32$, then $20^\circ C =$
a.) $68^\circ F$ b.) $43.1^\circ F$ c.) $64^\circ F$ d.) $52^\circ F$
24. A set of three numbers has an average of 8. What number should be added to the set to make the average of all four numbers 9?
a.) 12 b.) 15 c.) 9 d.) 13
25. Eighty-eight is the result when one-half of the sum of 24 and a number is all taken away from three times the number. What is the number?
a.) 16 b.) 40 c.) 41 d.) 28

POTLUCK 2011 Answer Key

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