

Contest Problems

Mrs. Morris' 5th Grade Class, Clay City Elementary

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- 0 divided by 1 equals
A) $1 + 0$ B) $1 - 0$ C) 1×0 D) $\frac{1}{0}$
- If $200 - 100$ is divided by $100 - 50$ the result is
A) 2 B) 1 C) 0.5 D) 0
- When a certain number is divided by 8, the quotient is 4 and the remainder is 0. The number is
A) 2 B) 12 C) 24 D) 32
- Which one of these numbers is even?
A) $(3 \times 15) + 2$ B) $151 + 1234$
C) $(2 \times 151) + 4$ D) $(20 \times 20 \times 4) + 3$
- $(2006 - 2004) + (2003 - 2000)$ equals
A) 1 B) 5 C) 6 D) 9
- If Steve goes to sleep at 10:30 pm and sleeps for 9 hours and 30 minutes, he will wake up at
A) 11 am B) 10 am C) 9 am D) 8 am
- $1 \times 2006 + 2 \times 2006 + 3 \times 2006 + 4 \times 2006$ equals
A) 12×2006 B) 10×2006
C) 24×2006 D) 25×2006
- On a certain day the temperature was 8 degrees below zero at 7 am. At noon the temperature was 5 degrees above zero. How many degrees did the temperature rise?
A) 5 B) 8 C) 12 D) 13
- If a cat can catch 7 mice in 2 hours, how many mice can it catch in 6 hours?
A) 14 B) 21 C) 20 D) 32
- If you have a sign made and the printer charges you 50 cents for each of the first 10 words, and 20 cents for each word after than, how much will it cost to have a sign made that has 15 words?

A) \$3 B) \$5 C) \$6 D) \$10

11. A car is driven at 30 miles per hour. The distance the car covers in 6 minutes is

A) 1 mile B) 2 miles C) 3 miles D) 5 miles

12. The cost of 4 shirts and 6 ties is \$180. If each shirt costs \$30, each tie costs

A) \$5 B) \$8 C) \$10 D) \$20

13. The cost of one liter of cola is half the cost of one liter of juice. If juice costs \$2 per liter, the total cost of one liter of cola and one liter of juice is

A) \$2 B) \$3 C) \$4 D) \$6

14. Mary got 28 questions right on an exam and scored 80 percent. The number of questions on the exam was

A) 25 B) 30 C) 33 D) 35

15. Three children sit down on a bench. How many different orders can they sit in, from left to right?

A) 3 B) 6 C) 10 D) 15

16. Superman leaves Metropolis at 2 pm and flies 500 miles per hour to Gotham City. He arrives at 4 pm. If he needs to be back to Metropolis by 5 pm, what's the minimum speed (miles per hour) he'll have to fly on the way back?

A) 500 B) 1000 C) 1500 D) 5000

17. A certain number is divided by 7. The quotient is 9 and the remainder is 4. The number was

A) 36 B) 45 C) 63 D) 67

18. If I earn a dollar every 15 minutes, how much will I earn in 24 hours?

A) \$96 B) \$100 C) \$144 D) \$200

19. A number is called a *perfect square* if it is the square of a whole number. The first four perfect squares are 1, 4, 9, 16. The 100th perfect square is

A) 100 B) 1,000 C) 10,000 D) 1,000,000

20. The area of a certain rectangle is 24 square feet. One of the sides of the rectangle has length 8 feet. What is the perimeter of the rectangle, in feet?
- A) 3 B) 11 C) 22 D) 24
21. A whole number is called *prime* if it is divisible only by itself and 1. Which one of these is prime?
- A) 27 B) 42 C) 65 D) 67
22. A store owner has a scarf for sale. He reduces the price of the scarf by 50 percent. Later, he reduces THAT price by 30 percent. If the scarf sold for \$20 originally, what is the price now?
- A) \$5 B) \$7 C) \$9 D) \$10
23. Each principal of Washington High School serves exactly one three year term. What is the maximum number of different principals this school could have in an eight year period?
- A) 2 B) 3 C) 4 D) 5
24. How many whole numbers between 101 and 1001 are divisible by 5?
- A) 150 B) 179 C) 180 D) 181
25. The difference between two prime numbers can NEVER equal
- A) 1 B) 2 C) 6 D) 7
26. The sum of five different positive whole numbers is 500. The largest value any of these numbers could have is
- A) 102 B) 490 C) 494 D) 499
27. The sum of two numbers is 18, and the difference is 4. What are the two numbers?
28. If 20 percent of a number is 12, what is 30 percent of the same number?
29. My dog was 200 feet from home and my cat was 120 feet. I called them and they both ran straight home. If the dog runs twice as fast as the cat, how far from home was the cat when the dog got reached home?
30. Square I has exactly twice the perimeter of square II. What is the ratio of the area of square II to the area of square I?
31. What is the largest whole number that divides both 60 AND 75?

32. What is the smallest whole number that is divisible by both 14 and 35?
33. A group of 7 children rode past Michael's house on bicycles and tricycles. Michael counted a total of 19 wheels. How many children were on bicycles?
34. A fair six-sided die is rolled onto a table top. It comes to rest with one face down. The other five faces can be seen, of course. What are the odds (as a fraction or percent) that the product of the numbers on these five faces is divisible by 6?