

2008 Penny Sikes-Farmers and
Merchants Bank 5th and 6th Grade
Mathematics Tournament

Rules for Ciphering

- Two rounds of 8 questions each
- Each team must write the school code and their grade on their ciphering sheet.
- Answer must be written in the answer box, including units.
- Four participants from each school for each round
- Two minutes to answer each question
- 10 points awarded if answered correctly within 1 minute, 5 points awarded if answered correctly after 1 minute
- 10 second warning before first minute ends and before second minute ends
- Answers must be handed to the runner before the moderator says "one minute" or "two minutes"

Ciphering

Round 1

Practice Question

Tom bought 12 candy bars. He gave Sam 2 candy bars and Tina 1 candy bar. How many candy bars did Tom have left?

Answer

9 candy bars

Question #1

I bought ten tickets to the concert. Each ticket cost \$4.50. Later, I sold all the tickets for \$60. How much money did I make on each ticket?

Answer #1

\$1.50 on each ticket

Question #2

Brenda bought two identical posters. She gave the clerk \$10 and received \$2.02 in change. How much did one poster cost?

Answer #2

\$3.99

Question #3

Ellen said she spent half her money for lunch and half of what was left for a movie. She now has \$1.20. How much did she spend for lunch?

Answer #3

\$2.40

Question #4

What is the sum of the seven smallest numbers that are multiples of 7?

Answer #4

196

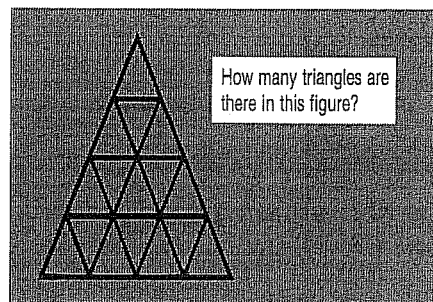
Question #5

Cut a cake into fourths. Now cut each fourth into three equal pieces. Each piece is what fraction of the cake?

Answer #5

$\frac{1}{12}$

Question # 6

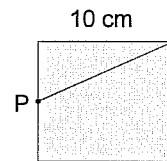


Answer #6

27 triangles

Question #7

If the side of the square is 10 cm and point P is the midpoint of the side, what is the area of the triangle?



Answer #7

25 cm²

Question #8

A rectangular cake that is 12 inches long, 9 inches wide, and 2 inches high is cut into 18 equal pieces. What is the volume of each piece?

Answer # 8

12 in³

End of Round 1

Ciphering

Round 2

Practice Question #2

If comic books are \$6.00 each, how many comic books can be bought for \$30?

Answer

5 comic books

Question #1

I want to buy 36 fishhooks. I can buy a package of 18 hooks for 69 cents, or I can buy the hooks individually for 4 cents each. How much can I save if I buy two packages instead of buying the hooks individually?

Answer #1

6 cents

Question #2

Palindromic numbers are numbers which read the same forwards as backwards. The number 72127 is a palindrome. How many different five-digit numbers begin with the digits 34 and are palindromic numbers?

Answer #2

ten numbers

Question #3

A penny is 0.14 cm thick. A roll of pennies is worth 50 cents. How long is a roll of pennies?

Answer #2

7 centimeters

Question #4

Jim's age this year is a multiple of 5. Next year Jim's age will be a multiple of 7. Jim's older brother is now 28. How old is Jim?

Answer #3

20 years old

Question #5

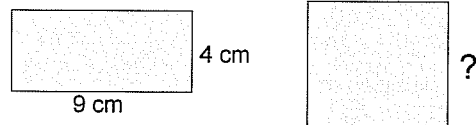
The sum of two decimal numbers is 1.3 and their product is 0.36.
What are the two decimal numbers?

Answer #4

0.9 and 0.4

Question #6

What is the perimeter of a square that has the same area as a 4 cm by 9 cm rectangle?



Answer #6

24 cm

Question #7

You roll two dice and multiply the two numbers. How many different products can you get?

Answer # 7

18

Question #8

In 1965, a New Zealand baker produced a loaf of bread that was 20 feet, 5 inches long. If a slice of bread is $\frac{1}{2}$ inch thick, into how many slices could the loaf be cut?

Answer #8

490 slices

End of Round 2

Tie Breaker # 1

Carole won the ping pong game by a score of 21 to 14. What percent of the points did she score?

Answer to Tie Breaker #1

60%

Tie Breaker #2

A rectangular driveway that is 20 feet by 50 feet is covered by 6 inches of snow. A cubic foot of snow weighs about 7 pounds. What is the weight of the snow on the driveway?

Answer Tie Breaker #2

3500 pounds

Tie Breaker #3

At noon, a 60-foot pole casts a shadow of 100 feet. At the same time, a monument casts a shadow that measures 140 feet. How high is the monument?

Answer to Tie Breaker #3

84 feet