Spirit of Math
Releasing the Genius ®

Spirit of Math
International Contest 2024

INSTRUCTIONS

1 You have 45 minutes to write the contest.

2 The contest is multiple-choice with four choices for each question.

3 Write the CAPITAL letter of the answer you choose on the line to the right of each question.

4 Each question answered correctly is worth one mark, and the sum of the correct answers is the score.

5 Marks are not taken off for wrong answers.

6 No calculators or other counting tools are allowed.

Student Name:

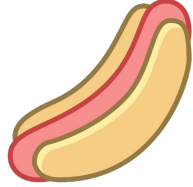**Score:** /30

1) $1 + 27 + 5 + 3 + 9 + 15 = ?$

A) 50 B) 60 C) 70 D) 80 _____

2) What comes next in this pattern? 7, 10, 13, 16, ___

A) 17 B) 19 C) 20 D) 21 _____

3) Samuel places the following numbers in order from least to greatest: 2, 27, −18, 15, −11. Which number is in the middle?

A) 2 B) −11 C) 15 D) −18 _____

4) Cho made 52 bracelets. She gifted them to her friends. If each of her friends get four bracelets, how many friends does Cho have?

A) 11 B) 13 C) 14 D) 16 _____

5) Padma scored seven points in a tennis game. Parmjit scored two more points than Padma. How many points did they score in total?

A) 5 B) 9 C) 12 D) 16 _____

6) Frank has two records, one is Dark Summer and the other is Firedive. One of the records is not Firedive, Frank plays the other one. Which record does Frank play?

A) Dark Summer B) Ecstasy C) Firedive D) Frank _____

7) What is a quarter of the number of sides of an octagon?
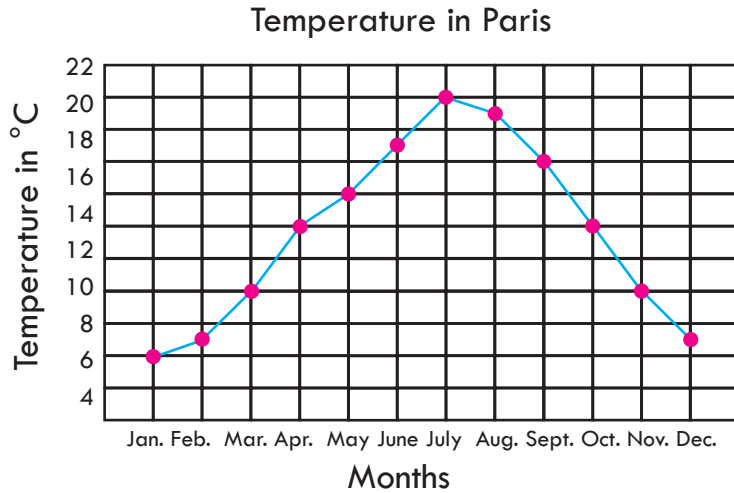
A) 1 B) 2 C) 3 D) 4 _____

Space for rough work

8) A palindrome is a number or word that can be read the same forwards and backwards (e.g., 2552 or MOM). Which two digits can be put in the respective places to make the number 14_07_1 a palindrome?

A) 0, 1   B) 1, 0   C) 4, 7   D) 7, 4   _____

9) Jasmine, Justin, and Jordan were having a party. They each invited one friend. At the party, they decided to share the last hotdog. How many parallel cuts do they need to make for everyone to get a piece of the hotdog?

A) 4   B) 5   C) 6   D) 9   _____

10) Among 30 cupcakes, 17 have a cherry on top, 21 have icing, and some have both. How many cupcakes have both a cherry on top and icing?

A) 8   B) 9   C) 13   D) 14   _____

11) Find the missing term in the equation: $3 \times 7 = 26 - 11 + \_\_\_$

A) 5   B) 6   C) 7   D) 8   _____

12) The number 220 is **not** divisible by which of the following?

A) 4   B) 5   C) 7   D) 11   _____

13) Amira, Camille, and Mei ordered three sandwiches: chicken with cheese, meatball with cheese, and steak without cheese. Amira is allergic to dairy and Mei does not like chicken. Which sandwich did Camille order?

A) Chicken with cheese   B) Meatball with cheese   C) Steak without cheese   D) Not enough information   _____

Space for rough work

14) The monthly temperature in Paris is recorded in the graph below. How many months are colder than 10°C?

Temperature in Paris

| A) 3 | B) 5 | C) 6 | D) 7 | _____ |

15) Athena started reading her biology textbook at the top of page 17 and finished at the bottom of page 63. How many pages did she read?

| A) 46 | B) 47 | C) 48 | D) 49 | _____ |

16) Victoria visits two cookie stores, five doughnut stores, and three ice cream stores. She buys seven cookies from each cookie store, three doughnuts from each doughnut store, and six ice cream cones from each ice cream store. How many sweet treats does she buy in total?

| A) 10 | B) 16 | C) 47 | D) 60 | _____ |

17) Nine friends are exchanging presents for Christmas. If each friend gives one present to everyone else, how many presents were exchanged in total?

| A) 9 | B) 18 | C) 36 | D) 72 | _____ |

Space for rough work

18) When Meghan was 12 years old, Mike was one-third of her age. How old is Mike today if Meghan is 45 years old?

A) 12 B) 15 C) 36 D) 37 _____

19) Santiago writes down his favourite sport using a secret code: XTHHJW. In this secret code, every letter is replaced with the fifth letter after it. For example, A becomes F, B becomes G, and Z becomes E. What is Santiago's favourite sport?

Hint: Use the alphabet below to decode the message.

A-B-C-D-E-F-G-H-I-J-K-L-M-N-O-P-Q-R-S-T-U-V-W-X-Y-Z

A) Sawing B) Skiing C) Soccer D) Squash _____

20) A bag contains six red candies, two yellow candies, and three blue candies. If you pick a candy out of this bag without looking, what is the probability that the candy is **not** blue?

A) $\dfrac{2}{11}$ B) $\dfrac{3}{11}$ C) $\dfrac{6}{11}$ D) $\dfrac{8}{11}$ _____

21) Ishita left home for art class at 10:35 a.m. and returned home at 12:05 p.m. If her one-way travel time was 15 minutes, how long was her art class?

A) 1h B) 1h 10min C) 1h 15 min D) 1h 30min _____

22) Evan wants to buy a bicycle that costs $450. He is given a monthly allowance of $10 in January, $20 in February, $30 in March, and so on. Assuming he saves all of his money, when will he have enough money to buy the bicycle?

A) August B) September C) October D) November _____

23) Find an expression equivalent to $2^3 \times 3^3 \times 10$.

A) $2^3 \times 3^3 \times 5$ B) $2^3 \times 3^4 \times 5$ C) $2^4 \times 3^3 \times 5$ D) $2^4 \times 3^4 \times 5$ _____

Space for rough work

24) Johann is writing a math test. Some of the questions are worth two points and the rest are worth five points. If the test had 20 questions and Johann received a perfect score of 55 points, how many questions were worth five points?

A) 2   B) 3   C) 4   D) 5   _____

25) Renee is planning to leave for a vacation on her birthday. Her birthday is four days before one week after five days after a dozen days before July 31st. When is Renee's vacation scheduled to begin?

A) July 27th   B) July 28th   C) August 4th   D) August 5th   _____

26) How many ways can you rearrange the letters in the word ENJOY including the arrangement that spells ENJOY?

A) 24   B) 60   C) 120   D) 130   _____

27) Kate wants to finish her biology class with a grade of 88%, but she received an average of 87% on her first four tests. What score does she need on her fifth and final test to achieve her goal? What is the best logical question you could ask to help you solve this problem?

A) How many tests does Kate have to write?   B) Is Kate scoring higher on the tests than her classmates?   C) Is Kate's score increasing or decreasing with every test?   D) What is Kate's total score so far?   _____
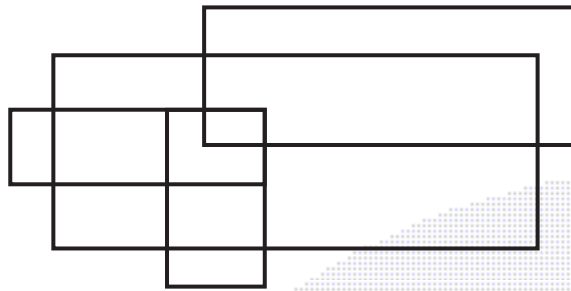
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28) Three hamburgers and five hot dogs cost $20. Five hamburgers and three hot dogs cost $12. How much does two hamburgers and two hot dogs cost?

A) $4   B) $6   C) $8   D) $10   _____

29) If 5 dogs can eat 20 bones in 2 hours, how long it will take 10 dogs to eat 120 bones?

A) 2 hours   B) 3 hours   C) 6 hours   D) 12 hours   _____

30) How many rectangles of all sizes are in this diagram?

A) 8   B) 16   C) 19   D) 21   _____

Space for rough work

To promote co-operation, inspire confidence and Release the Genius® in every child.