Spirit of Math
Releasing the Genius ®

Spirit of Math
International Contest 2023

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 and fill in the corresponding circle on the SoM Answer Sheet.

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

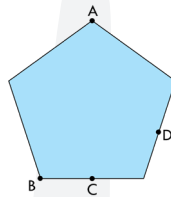**5** Marks are not taken off for wrong answers.

6 No calculators or other counting tools are allowed.

Student Name:

Score: /30

1) $3 + 12 + 6 + 8 + 7 + 14 =$
    A) 50   B) 60   C) 70   D) 80   _____

2) My sister is 6 years older than me. If I am 8 years old, how old is my sister?
    A) 6   B) 8   C) 13   D) 14   _____

3) Joanna owns seven chickens. She decided to count all their legs. If a chicken has
    two legs, how many legs did she count in total?
    A) 2   B) 7   C) 14   D) 21   _____

4) What comes next in this pattern? A1, B3, C5, …
    A) D4   B) D6   C) D7   D) D8   _____

5) Kayden's birthday is six days before June 22nd. When is Kayden's birthday?
    A) June 15   B) June 16   C) June 17   D) June 18   _____

6) On the weekend, I baked three more than a dozen cookies. How many cookies
    did I bake?
    A) 5   B) 15   C) 24   D) 27   _____

7) Jannah wants to draw a line from point A to point B on this pentagon.
    What two shapes will she split the pentagon into?

    A) Triangle and   B) Triangle and   C) Trapezoid and   D) triangle and   _____
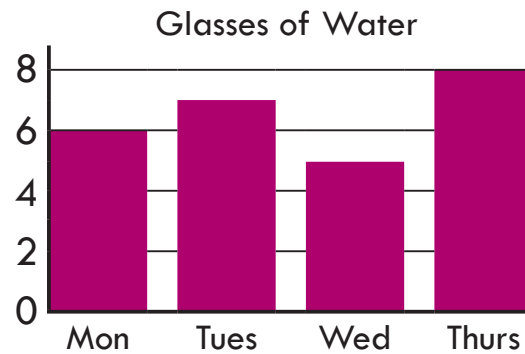   trapezoid   rectangle   square   square

Space for rough work

8) Seventeen relatives came together for a family picnic. All but 12 ate sandwiches at the picnic. How many ate sandwiches?

A) 5   B) 12   C) 15   D) 17   _____

9) Korey's favourite book series is *The Pet-Sitter's Society*. She has read every book in the series from #17 to #99. How many *Pet-Sitter's Society* books has Korey read?

A) 82   B) 83   C) 99   D) 100   _____

10) Areen has a total of 60 books! She donated half to charity, then gave half of what was left to her little brother. How many books did she give to her little brother?

A) 5   B) 10   C) 15   D) 20   _____

11) Farmer Jane put up a square fence to keep her chickens from getting away. Each side of the fence was 2 metres. She realized this was too small, so she doubled the length of each side of the square fence. What is the perimeter of her new chicken fence?

A) 6 metres   B) 8 metres   C) 12 metres   D) 16 metres   _____

12) I bought an ice-cream cone for $1.50. If I paid with a $5 bill, how much would I get back in change?

A) $1.50   B) $3.50   C) $5   D) $6.50   _____

13) It takes Demi 4 minutes to make one cut through a log using a saw. How long does it take her to cut the log into 5 pieces using parallel cuts?

A) 4 minutes   B) 9 minutes   C) 16 minutes   D) 20 minutes   _____

Space for rough work

14) Khalil keeps track of how much water he drinks every day. How many glasses of water did Khalil drink in total from Monday to Thursday?

Glasses of Water

A) 20 B) 22 C) 24 D) 26 _____

15) Sayed was excited to go scuba-diving! He first went 8 metres underwater, then rose 5 metres, then went down 6 more metres. How far underwater is Sayed now?

A) 9 metres B) 12 metres C) 15 metres D) 19 metres _____

16) Lenny, Marie, Nico, and Oren are lined up to buy fresh juice from the Jazzy Juice Truck. Nico is two spots behind Oren in the line. Lenny is at the end of the line. Who is at the front of the line?

A) Lenny B) Marie C) Nico D) Oren _____

17) In North America, Mother's Day is always the second Sunday in May. If May 1st is on a Monday this year, what date will Mother's Day be?

A) May 12 B) May 13 C) May 14 D) May 15 _____

18) Elaina has a lot of pet birds and cats! If her pets have a total of 10 heads and 32 legs, how many cats does Elaina have?
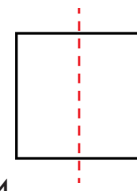
A) 4 B) 6 C) 8 D) 12 _____

Space for rough work

19) The image on the right shows a line of symmetry on a square: if you fold along the dotted line, the two sides will match. How many lines of symmetry does a square have?

A) 1   B) 2   C) 3   D) 4   _____

20) All of the kids in Mrs. Liu's class like pizza. Twelve kids like cheese pizza, nine kids like pepperoni pizza, five kids like both cheese and pepperoni, and none of the kids like any other kind of pizza. How many kids are in Mrs. Liu's class?

A) 16   B) 21   C) 26   D) 30   _____

21) *Two bips weigh the same as one bop. Two bops weigh the same as four bloops. If one bloop weighs 3 kg, how much does one bip weigh?*

Which question below requires the correct logical thinking to solve this problem?

A) How much does one bop weigh?   C) How much does one bloop weigh?   _____

B) What is the difference between a bip and a bop?   D) Which one is the biggest?

22) Venya gave three dollars to Sonya. Sonya gave two dollars back to Venya. Now they both have five dollars. Which of the following is true?

A) Venya started off with three dollars   C) Sonya started off with three dollars   _____

B) Venya started off with six dollars   D) Sonya started off with six dollars

23) A hallway has four evenly-spaced doors along one side. Each door is 60 cm wide, and the wall space between one door to the next is 40 cm. What is the length of space from the left edge of the first door to the right edge of the last door?

A) 240 cm   B) 360 cm   C) 380 cm   D) 400 cm   _____

Space for rough work

24) Mike is arranging his toy car collectables on his shelf. He has four cars of different colours: red, blue, yellow, and green. How many different ways can he arrange the cars if he always wants to keep the blue and green cars on the outside?

A) 2   B) 4   C) 6   D) 8   _____

25) Lily forgot the four-digit code to unlock her tablet! When she made the code, she wrote down clues for herself to help her remember it. The clues are:

  • The first two digits are a prime number less than 20
  • The last two digits are double the first two digits
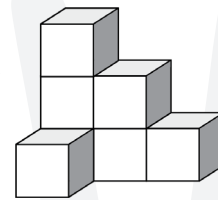 • The middle two digits are also a prime number.

What are the first two digits of Lily's code?

A) 11   B) 13   C) 17   D) 19   _____

26) Celine wants to practice piano an average of 2 hours a day for the month of April. She practiced a **total** of 15 hours from April 1st to April 10th, but then got sick and took a break for five days. How many hours a day will Celine need to practice for the rest of the month in order to reach her goal?

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

27) Timothy made this structure by gluing seven cubes together. He then decided to paint it purple. If he takes apart his structure, how many faces will **not** have purple paint on them?

A) 7   B) 14   C) 21   D) 28   _____
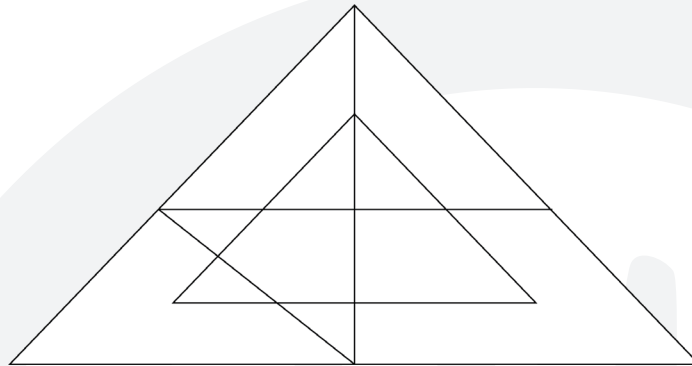

Space for rough work

28) Ada, Bonnie, Chris, and Dan went to a café, and each ordered a different pastry. There were four pastries on the menu: chocolate croissant, cherry danish, blueberry muffin, and apple cinnamon muffin. Bonnie ordered a muffin; Ada did not. Dan didn't order a fruit pastry. Chris is allergic to blueberries. What pastry did Chris order?

A) chocolate croissant   B) cherry danish   C) blueberry muffin   D) apple cinnamon muffin   _____

29) Marya loves collecting pink and white hair accessories. She has 7 hairbows that are only pink, 6 hairbows that are both pink and white, 3 headbands that are only pink, and 4 headbands that are only white. Without looking, how many hair accessories must Marya remove from the pile so that she can be sure she picked one that has white?

A) 4   B) 11   C) 16   D) 20   _____

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

A) 11   B) 15   C) 18   D) 20   _____

_____

Space for rough work

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