



Spirit of Math.

Releasing the Genius.

IN COLLABORATION WITH



Developed by

Stanford University

GRADE 4

Spirit of Math International Contest 2022

In collaboration with SMILE developed by Stanford University

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:

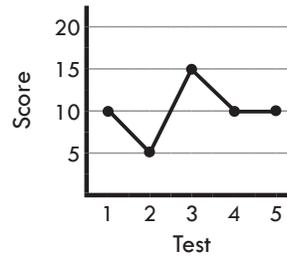
Score: /30



1) $79 + 12 - 9 + 18 = ?$
 A) 90 B) 100 C) 110 D) 120 _____

2) What is the next number in the sequence: 46, 41, 36, 31, _____
 A) 21 B) 22 C) 25 D) 26 _____

3) The graph to the right shows Sonia's scores for the first five tests this term. What is her highest score so far?



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

4) Katy rounded 32 to the nearest ten before adding it to 20. What number did she get after adding?
 A) 40 B) 50 C) 51 D) 60 _____

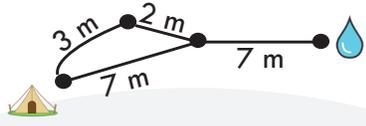
5) Find the missing term in the equation: $4 \times 3 = 9 + \underline{\hspace{1cm}}$.
 A) 3 B) 4 C) 5 D) 6 _____

6) Kwadwo counted the tires of cars with 4 wheels each and bicycles with 2 wheels each as they drove by his house. If he saw 2 cars and 2 bicycles, how many tires did he count?
 A) 3 B) 10 C) 12 D) 20 _____

7) Jo's square garden has a side length of 8 m. What is the perimeter of her garden?
 A) 24 m B) 28 m C) 32 m D) 40 m _____

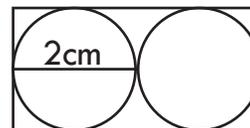
Space for rough work



- 8) What is the fourth pair of letters in the pattern? Az, By, Cx,...
- A) Dw B) Dv C) Ew D) Ev _____
- 9) Manuel loves to read! He reads three books every Tuesday and three books every Thursday. How many books will he have read in seven weeks? 
- A) 21 B) 35 C) 42 D) 49 _____
- 10) Cybil must reach the airport 1 hour and 15 minutes before her flight. If her plane is scheduled to leave at 9:30 a.m., when must Cybil arrive at the airport?
- A) 8:15 a.m. B) 8:25 a.m. C) 8:30 a.m. D) 9:15 a.m. _____
- 11) Cornelius wants to fetch water for his campsite () at the water station (). If Cornelius can only walk on the lines shown to the right, how long is the shortest path from his campsite to the water station? 
- A) 9 m B) 10 m C) 12 m D) 14 m _____
- 12) Ekani wants to insert the digit 5 somewhere in the number 203 to make the **smallest** possible four-digit number. Where should Ekani insert the digit 5?
- A) At the beginning of 203 C) Between the 0 and the 3
B) Between the 2 and the 0 D) At the end of 203 _____
- 13) Sam's birthday is a **week before** Tony's birthday. If Tony's birthday is 1 day after 2 days before June 20th, when is Sam's birthday?
- A) June 11th B) June 12th C) June 14th D) June 26th _____

Space for rough work

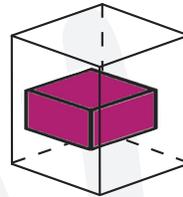
- 14) Two circles with diameter 2 cm are wrapped by a rectangle as shown in the image to the right. What is the area of the rectangle? Which question below requires the correct logical thinking to solve this problem?



- A) How many circles are inside the rectangle? C) What is the diameter of each circle?
- B) What is the circumference of one circle? D) What is the length and width of the rectangle? _____
- 15) On a treasure hunt, Pirate Pete found 12 buried treasures while Captain Caleb only found 6 buried treasures. If they equally shared the treasures they found, then how many treasures would each of them get?
 A) 6 B) 9 C) 12 D) 18 _____
- 16) The manager of an ice cream parlour noticed that out of the 38 customers that visited, 30 ordered chocolate ice cream and 18 ordered vanilla ice cream. If everyone ordered at least one of these two flavours, how many customers ordered both flavours of ice cream?
 A) 8 B) 10 C) 12 D) 20 _____
- 17) At Zeke's birthday party, 21 people shook hands with each other once. How many handshakes were there in total?
 A) 210 B) 231 C) 420 D) 462 _____
- 18) Great Granny Greta has **two** big suitcases. Each suitcase has **two** red backpacks. Each backpack has **two** new lunch bags. Each lunch bag has **two** magical candies. How many candies does Great Granny Greta have?
 A) 8 B) 16 C) 32 D) 64 _____
- 19) How many ways can you arrange the letters in the word CANADA including the arrangement that spells CANADA?
 A) 120 B) 240 C) 360 D) 720 _____

Space for rough work

- 20) A bag contains 2 red balls, 1 green ball, and 4 yellow balls. Without looking, I take out a ball from this bag. What is the probability that the ball is **not** green?
 A) $\frac{1}{6}$ B) $\frac{2}{7}$ C) $\frac{4}{7}$ D) $\frac{6}{7}$ _____
- 21) Nico started reading her favorite book "Fun Coding Projects" at the top of page 23 and finished at the bottom of page 83. How many pages did Nico read?
 A) 60 B) 61 C) 105 D) 106 _____
- 22) Raquel, Gregory, Bennett, and Bailey have four different favourite colours: red, blue, green, or yellow. Raquel does not like blue or green and Bailey does not like red. No one's favourite colour starts with the same letter as their name. What is Bennett's favourite colour?
 A) Blue B) Green C) Red D) Yellow _____
- 23) Ron plays tennis every 10 days and Sabrina plays tennis every 6 days. If they both played together on October 21st, when is the next date that they will both play tennis together again?
 A) October 31 B) November 6 C) November 20 D) December 20 _____
- 24) A rectangular prism of dimensions 4 m \times 4 m \times 2 m is trapped inside a cube of length 5 m. What is the volume inside the cube **not** occupied by the prism?
 A) 32 m³ B) 85 m³ C) 93 m³ D) 125 m³ _____

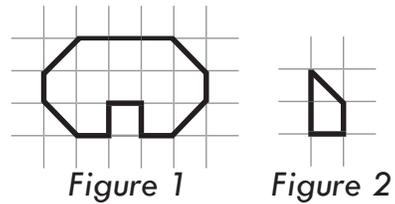


Space for rough work

25) Two dozen bananas and three dozen oranges cost \$55. Three dozen bananas and two dozen oranges cost \$65. How much does one banana and one orange cost?

- A) \$1 B) \$1.50 C) \$2 D) \$2.50 _____

26) Delia drew the shape in Figure 1 to the right. She cuts her shape into small pieces, where every piece looks like the shape in Figure 2 (Delia can flip and rotate the pieces). How many pieces does Delia cut her Figure 1 shape into?



- A) 6 B) 7 C) 8 D) 9 _____

27) At Pascal's Pizzeria, Rob can prepare 12 pizzas every half hour, while his assistant, Bob, can prepare 12 pizzas every 45 minutes. What time will they finish making 110 pizzas if they start working together at 2:30 p.m.?

- A) 4:15 p.m. B) 4:45 p.m. C) 5:15 p.m. D) 5:30 p.m. _____

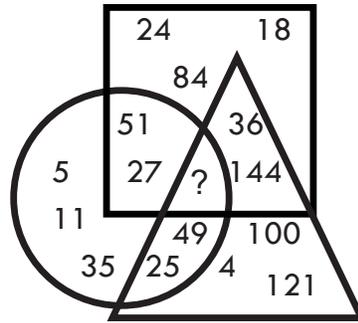
28) There were 62 more skiers than snowboarders on Math Mountain one morning. Suddenly, all snowboarders decided to switch to skiing for the rest of the day. Now the total number of skiers is 156. How many snowboarders were originally on Math Mountain?



- A) 31 B) 47 C) 56 D) 94 _____

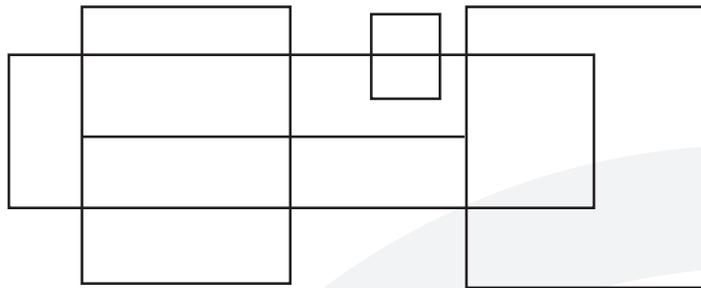
Space for rough work

29) Adele sorts some numbers according to their properties in the square, circle, and triangle to the right. Which of the following numbers could appear in the intersection of the square, circle, and triangle?



- A) 81 B) 105 C) 169 D) 324 _____

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



- A) 23 B) 25 C) 27 D) 29 _____

Space for rough work





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

For more information, please visit:
spiritofmathcontest.com

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