数学花园
探秘
MATHEMATICS GARDEN

2026 Spring Cup
Mathematical Olympiad

Date: 28 February 2026

Time Given: 1 hour

Level: Primary 2

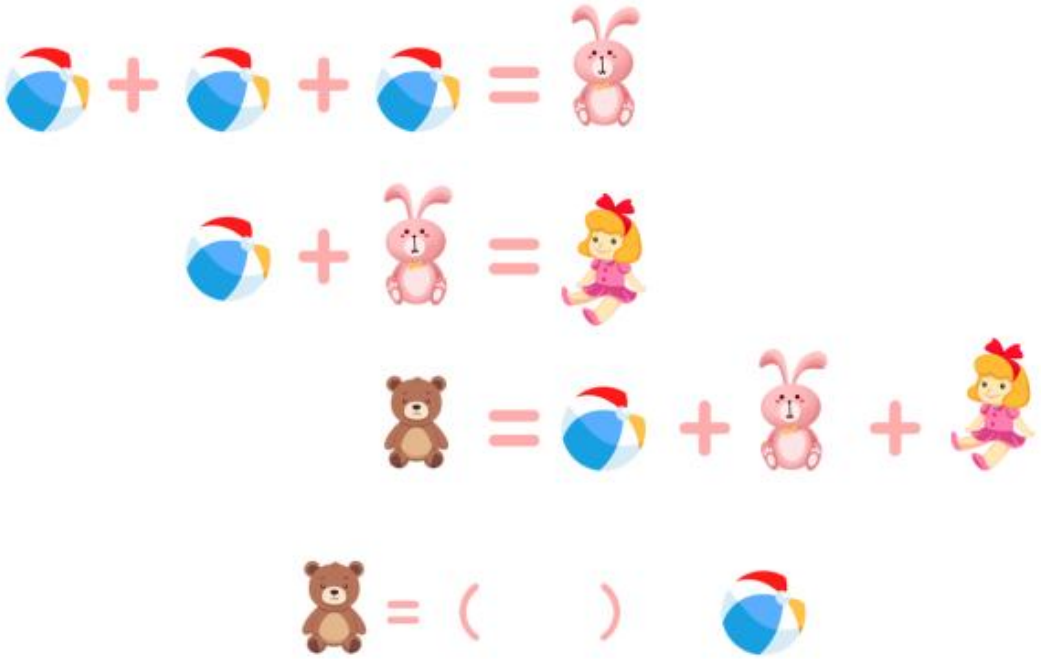
Name: _____

Instruction to Candidates

1. Do not open the booklet until you are told to do so.
2. Answer ALL 14 questions.
3. No steps are needed to justify your answers.
4. Questions 1-5 are worth 6 marks each.
5. Questions 6-14 are worth 10 marks each.
6. No marks will be deducted for wrong answers.
7. No marks will be given for unanswered questions.
8. No calculators or mathematical instruments are allowed.

Questions 1 to 5 are worth 6 marks each.

1. Fill the blank.



2. Alex bought 22 bottles of juice. Each bag can hold at most 4 bottles of juice. Alex needs at least _____ bags.

3. A red fruit cannot be paired with a red drink. How many different ways are there to pair one drink with one fruit?

4. Find the pattern and fill in the blank.

$1\times1=1$

$11\times11=121$

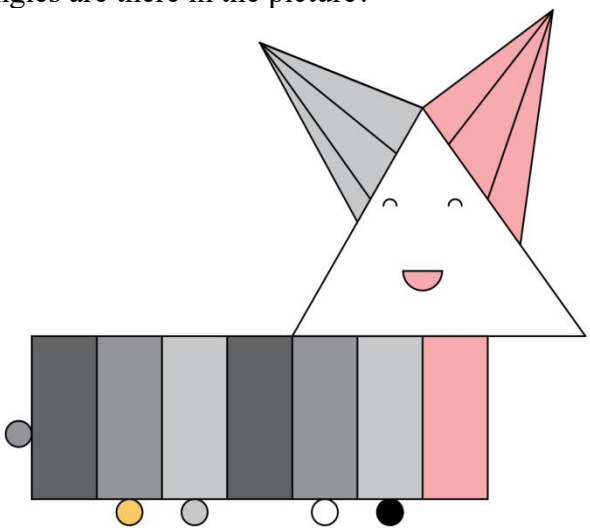
$111\times111=12321$

$1111\times1111=1234321$

⋮

$111111111\times111111111=$（　　）

5. How many rectangles are there in the picture?



Questions 6 to 14 are worth 10 marks each.

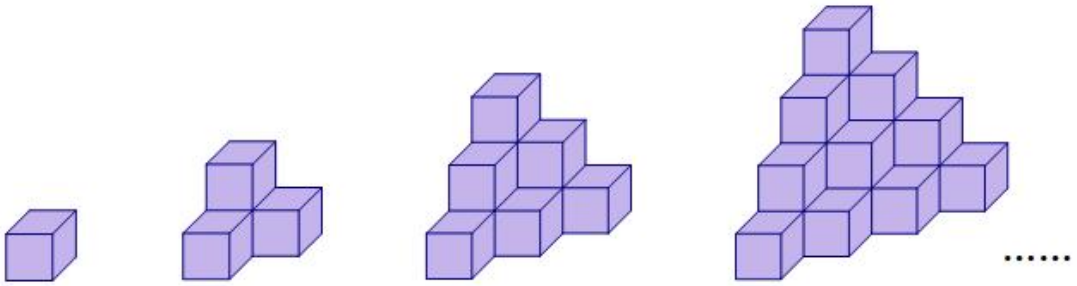
6. Alex and Ben originally had a total of 49 oranges. After Alex ate 5 of his own oranges, he then gave 10 oranges to Ben. In the end, Ben had 4 more oranges than Alex.
How many oranges did Alex have originally?

7. Fill in the circles with "–" or "÷" to make the equation true.

$$36 \bigcirc 4 \bigcirc 8 = 8 \bigcirc 56 \bigcirc 8$$

8. Cindy plants flowers in the pattern of 2 yellow flowers and 5 red flowers. She plants a total of 29 flowers. Deft then plants 3 blue flowers and 6 yellow flowers. Altogether, they plant _____ yellow flowers.

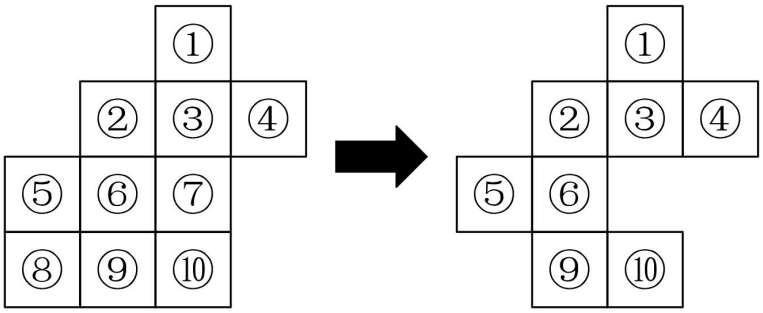
9. According to the pattern, how many small cubes should there be in the 8th figure?



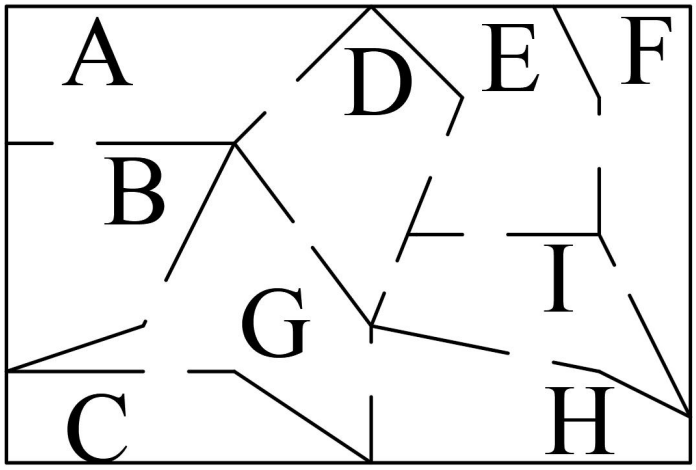
10. Swap exactly 3 cards so that the sum of the 4 numbers in each group is 15. Write down the numbers in each group after the swap.

1 2 4 5	1 2 4 6
1 3 7 9	1 2 4 8

11. The perimeter of the figure on the right is 6 cm longer than the perimeter of the figure on the left.
The perimeter of one small square is _____ cm.



12. The diagram below is a treasure map. You can only obtain the final treasure by passing through every door in each room. Under the fastest route, which two rooms serve as the starting and ending points?



13. Five students, A, B, C, D and E, shake hands with each other, with each pair shaking hands at most once. In the case where not every pair shakes hands, is it possible for each student to have a different number of handshakes? If it is possible, please provide one example (how many handshakes each student has and with whom). If it is not possible, assuming that four of them have different numbers of handshakes, determine the number of handshakes of the fifth student.

14. In your opinion, from question 1 to 13, your favourite question is question _____, the most difficult question is question _____.
(As long as your answer is within 1 to 13, you get full marks, otherwise you get zero.)