



2026 Spring Cup Mathematical Olympiad

Date: 28 February 2026

Time Given: 1 hour

Level: Primary 3

Name: _____

Instruction to Candidates

1. Do not open the booklet until you are told to do so.
2. Answer ALL 20 questions.
3. No steps are needed to justify your answers.
4. Questions 1-7 are worth 4 marks each.
5. Questions 8-14 are worth 6 marks each.
6. Questions 15-19 are worth 8 marks each.
7. Question 20 is worth 10 marks.
8. No marks will be deducted for wrong answers.
9. No marks will be given for unanswered questions.
10. No calculators or mathematical instruments are allowed.

Questions 1 to 7 are worth 4 marks each.

1. Fill in the blank.

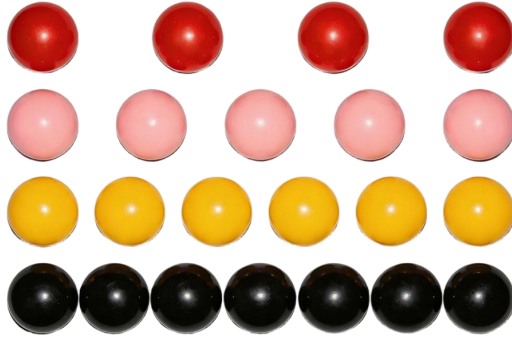
$$2026 = 7 \times 11 \times 13 \times 2 + (\quad)$$

2. Add “()” to make the equation correct.

$$1 + 4 \times 9 - 2 = 29$$

3. There are several pears and several people. If each person gets 6 pears, there will be 12 left; if each person gets 7 pears, there will be 11 needed. How many people are there?

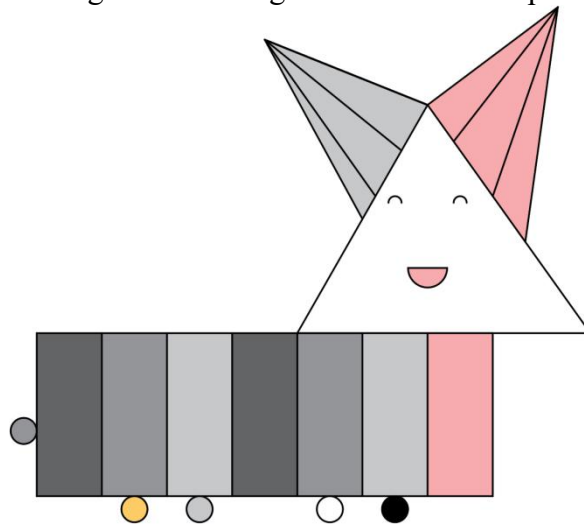
4. Suppose a bag contains 4 red balls, 5 pink balls, 6 yellow balls, and 7 black balls. To ensure that at least 3 different colors are taken, what is the minimum number of balls needed to take?



5. Cindy was born in June 2016. When she is 49 months old, what year and month will it be?

6. At a school book fair, Alice and Ben bought some stickers. Alice bought 7 more stickers than 3 times the number of stickers Ben bought. Altogether, they bought 55 stickers. How many stickers did Ben buy?

7. How many more rectangles than triangles are there in the picture?



Questions 8 to 14 are worth 6 marks each.

8. Grandpa plans to enclose a rectangular vegetable garden in his backyard with wooden boards (as shown in the diagram). **One side of the garden is against a wall.** The garden is 7 meters long and 6 meters wide. What is the minimum total length of wooden boards he needs?



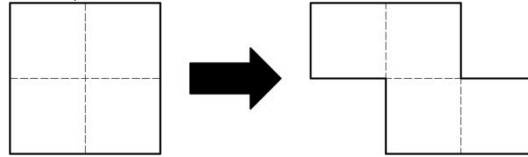
9. The four letters below represent the numbers 2, 3, 5, and 9. The same letter represents the same number. Find the value of “M”. (\overline{SS} represents a two-digit number.)

$$S + C + C + M + O + O = \overline{SS}$$

10. A school is preparing gift packs for a charity event. Each gift pack contains only notebooks and pens. For every 2 notebooks, there are 3 pens. Altogether, there are 190 items in all the gift packs. How many notebooks are there?

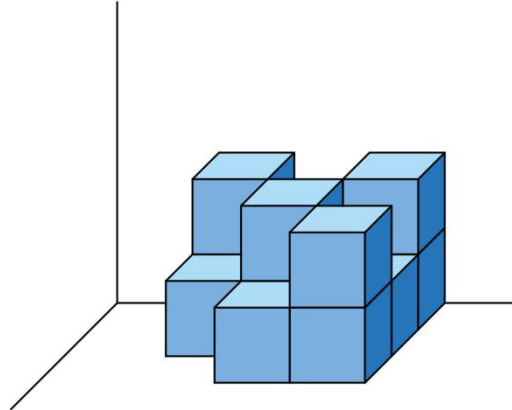
11. Captain America has 4 shields, among which 2 are fake. The fake shields look and feel exactly the same as the real ones, but they are lighter. He has only a balance scale and no weights. What is the minimum number of weighings needed to guarantee finding all the fake shields?

12. Harry cut a large square piece of paper along the dotted lines shown on the left in the diagram, obtaining four identical small square pieces. He then rearranged the four small squares into a “staircase” shape. The perimeter of the “staircase” is 6 cm longer than the perimeter of the original large square. What is the perimeter of the original large square (in centimeters)?



13. Sixteen people take part in a table tennis tournament using a knockout system (two people play one match, and the loser is eliminated). How many matches does the second-place play in total?(There are no ties.)

14. Amy used 12 small white cubes to build a large model and attached it to a wall (as shown in the diagram). He then painted all the exposed surfaces blue. Among all the faces of the small cubes, how many faces were not painted blue?



Questions 15 to 19 are worth 8 marks each.

15. How old is Principal Zhang this year?

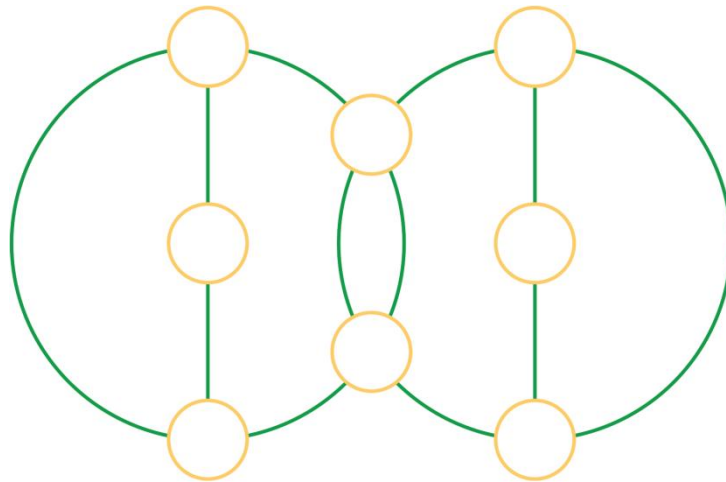
How old are you,
Principal Zhang?



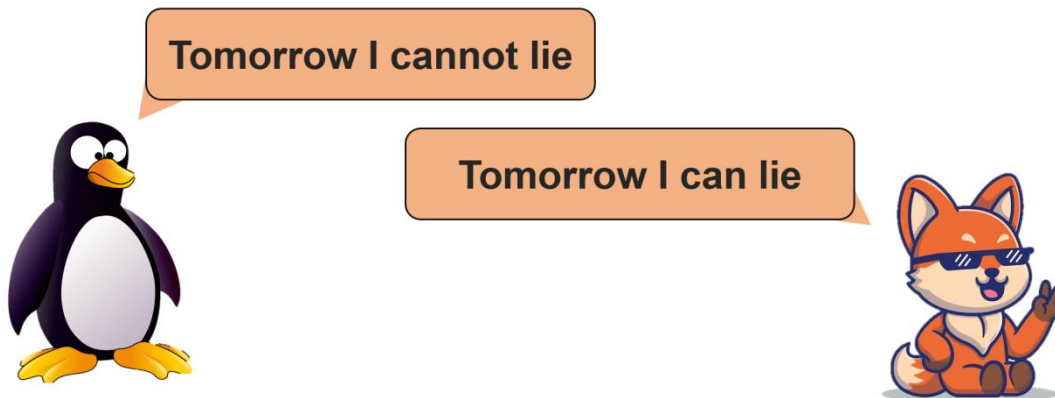
When I was your age, you were half my
age. When you are as old as I am, I will be
56 years old.



16. Place the numbers 2, 3, 5, 6, 7, 8, 9, and 9 into the small circles shown in the diagram so that the sum of the three numbers on each straight line is 20, and the sum of the four numbers in each green circle is also 20.



17. Both the animal's penguin and the fox like to lie. Whenever they can lie, they will definitely lie. The king therefore set a rule: The penguin can lie only on Wednesdays, Thursdays, and Fridays; while the fox can lie only on Fridays, Saturdays, and Sundays. One day, a penguin met a fox.



On which day of the week did they meet?

18. A palindrome is a number that reads the same forward and backward. Examples: 33, 121, 1331

Adding a 2-digit number to its reversed 2-digit number may result in a palindrome.

For example, take 12. Its reversed number is 21, and $12 + 21 = 33$, which is a palindrome.

Another example: $29 + 92 = 121$, and 121 is also a palindrome.

However, $84 + 48 = 132$, and 132 is not a palindrome.

How many 2-digit numbers can be added to their reversed numbers to obtain a palindrome?(Note: 12 and 21 are considered as 2 cases.)

19. In the sequence 1, 1, 2, 3, 5, 8, ..., starting from the third number, each number is the sum of the two preceding numbers. How many of the first 2000 numbers in this sequence are multiples of 3?

Questions 20 is worth 10 marks.

20. In your opinion, from question 1 to 19, your favourite question is question _____, the most difficult question is question _____.

(As long as your answer is within 1 to 19, you get full marks, otherwise you get zero.)