

ASIA SANSU OLYMPICS (ASO)- KIDSBEE

& KIDBEE-OPEN

7th September 2024



Trial Round, “**KIDS BEE**” Level

Instructions

- Do not open problem paper before getting permission.
- Write down your answers in the blank provided in answer sheet. Anything located outside blank will not be considered.
- Any question related to problem content or meaning is not allowed except missing typing.
- If student is in bad condition, please raise your hand and inform jury.
- Exit from examination room before time up is prohibited.
- When the time is up, put down pencil immediately and leave answer sheet on the table before leaving room.

Trial Round, “**KIDS BEE-OPEN**” Level

Examination period 60 minutes

Register for the 2025 AMO please click here > <https://bit.ly/amo-open-2025>

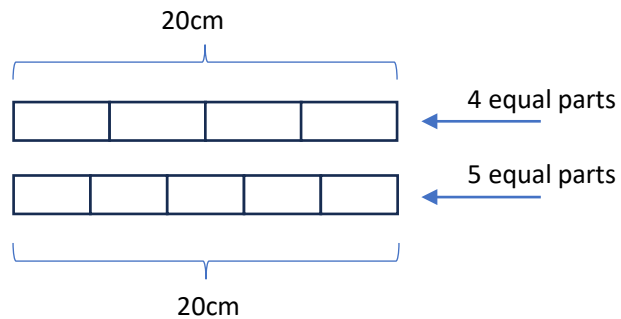
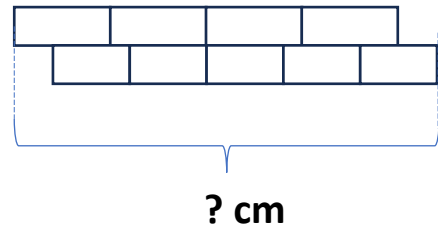
[Question 1] “ Addition”

Using the numbers 1, 2, 3, 4, 5 and 6, fill in the boxes with one number each to complete the addition equation.

$$\square + \square + \square + \square = \square \square$$

[Question 2] “Length”

Two rectangles with a length of 20 cm are shown in Figure 1. One is divided into 4 equal parts, and the other is divided into 5 equal parts.

**Figure 1****Figure 2**

These two rectangles are arranged as shown in Figure 2.

What is the length of “?” in centimeters?

[Question 3] “The Three Cards”

There are three cards, each with a number written on it. Note that none of the numbers is 0. The three cards are distributed, one each, to Saori, Michiko, and Hiroko. This process is repeated three times.

After adding up the numbers on the cards they received:

- Saori's total is 10.
- Michiko's total is 13.
- Hiroko's total is 4.

What are the numbers written on the three cards?

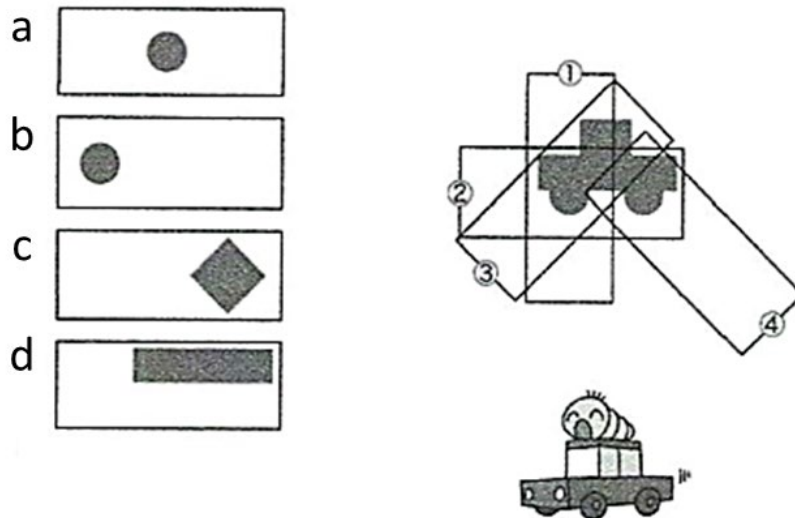


[Question 4] “Car Silhouette”

There are four sheets labeled a, b, c, and d. By overlapping these sheets, a silhouette of a car is created.

Which of the sheets a, b, c, d correspond to each of the numbers ①, ②, ③ and ④ ?

Note: The white areas on the sheets are transparent.



[Question 5] “Password”

To open a safe, you need a 4-digit password. Below are eight 4-digit numbers. In each number, only one digit is correct and in the right position. What is the correct 4-digit password?

8730	9105	7465	5868
8920	4529	4307	3050

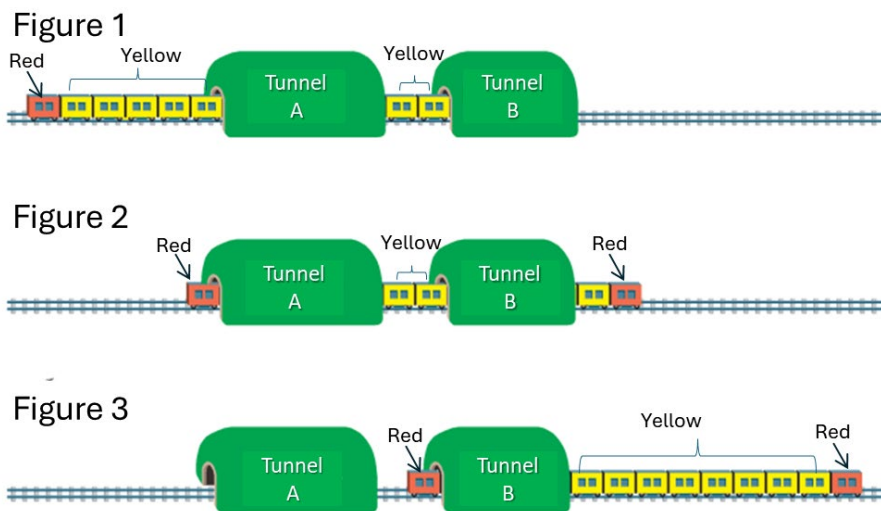
[Question 6] “The Train Passing Through Tunnels”

There is a train where the first and last cars are red, and all the other cars in between are yellow. All the cars are the same length.

When the train was first seen, it appeared as shown in Figure 1. Then, in the second observation, it appeared as shown in Figure 2. Finally, in the last observation, it appeared as shown in Figure 3.

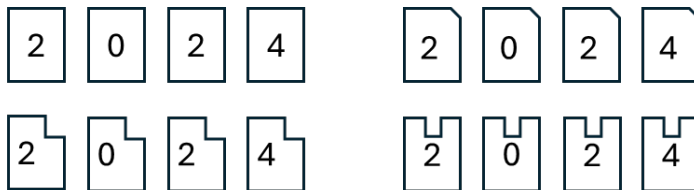
It is known that Tunnel A is longer than Tunnel B.

How many cars are there in total in this train?



[Question 7] “Fit the Pieces Perfectly”

There are 16 pieces with numbers written on them.



Place these pieces into the shapes in the grid below so that all eight equations (both horizontal and vertical) are correct.

$$\begin{array}{ccccccc}
 \square & + & \square & + & \square & + & \text{a} & = & 6 \\
 + & & + & & + & & + & & \\
 \square & + & \square & + & \text{b} & + & \square & = & 10 \\
 + & & + & & + & & + & & \\
 \square & + & \text{c} & + & \square & + & \square & = & 8 \\
 + & & + & & + & & + & & \\
 \text{d} & + & \square & + & \square & + & \square & = & 8 \\
 \text{II} & & \text{II} & & \text{II} & & \text{II} & & \\
 4 & & 6 & & 10 & & 12 & &
 \end{array}$$

What is the total sum of the numbers on the pieces placed in the spots labeled a, b, c, and d?

[Question 8] “Triangular Dice”

You have a tetrahedral die (triangular pyramid) with the numbers 1 to 4 written on its four triangular faces (as shown in Figure 1). Starting from the "Start" position in Figure 2, the die is placed with the number 1 on the bottom face. You then roll the die across the grid towards the "Goal" position, ensuring that you do not slide the die but only roll it. The sum of the numbers that end up on each position totals 24. The question is: What number is on the bottom face when the die reaches the "Goal" position?

Figure 1

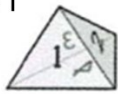
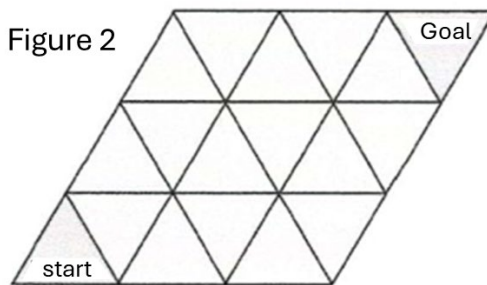


Figure 2





ASIA MATHEMATICS OLYMPICS (AMO)- KIDSBEE-OPEN 2024(GRADES 4-5)

First Name _____ Last Name _____ ID _____

Question 1 (10 points)

$$\square + \square + \square + \square = \square \square$$

Question 2 Circle the Masaru's shoe box (10 points)

Length of "?" is _____ cm.

Question 3 (11 points)

Numbers written on the three cards are

_____, _____ and _____

Question 4 (11 points)

a	b	c	d

Question 5 (15 points)

The correct 4-digit password is _____ .

Question 6 (14 points)

This train has _____ cars.

Question 7 (14 points)

$$a + b + c + d = \underline{\hspace{2cm}}$$

Question 8 (15 points)

The number on the bottom face when the die reaches the "Goal" position is _____



ASIA SANSU OLYMPICS (ASO)- KIDSBEE 2024

First Name _____ Last Name _____ ID _____

Question 1 (10 points)

$$\boxed{2} + \boxed{3} + \boxed{4} + \boxed{6} = \boxed{1} \boxed{5} \quad \text{All} = 10 \\ \text{Otherwise} = 0$$

Question 2 ~~Circle the Masaru's shoe box~~ (10 points)

Length of "?" is 22 cm.

Question 3 (11 points)

Numbers written on the three cards are

1 , 2 and 6 All = 11 (order not matter)
Otherwise = 0

Question 4 (11 points)

a	b	c	d
1	4	3	2

2.75 points each

Question 5 (15 points)

The correct 4-digit password is 4160 .

Question 6 (14 points)

This train has 14 cars.

Question 7 (14 points)

$$a + b + c + d = \underline{10}$$

Question 8 (15 points)

The number on the bottom face when the die reaches the "Goal" position is 3