

ASIA SANSU OLYMPICS (ASO)- KIDSBEE

8th October 2023

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.

Examination period 60 minutes

[Question 1] “ Two digit numbers”

There are two cards of number “2” , one card of number “0” and one card of number “3”. Choose two cards from these four cards to make two digit numbers.



- (1) What is the maximum difference between 2 two digit numbers ?

- (2) What is the minimum difference between 2 two digit numbers ?

[Question 2] “Shoe boxes”

There are 49 shoe boxes arranged as shown in the figure below. Refer to the following hints and answer by drawing the “circle” on Masaru’s shoe box.

Hint 1: # is located next to Masaru’s box left hand side.

Hint 2: # is located next to Masaru’s box right hand side.

Hint 3: # is located two boxes below Masaru’s box.

Hint 4: b is located two boxes above Masaru’s box.

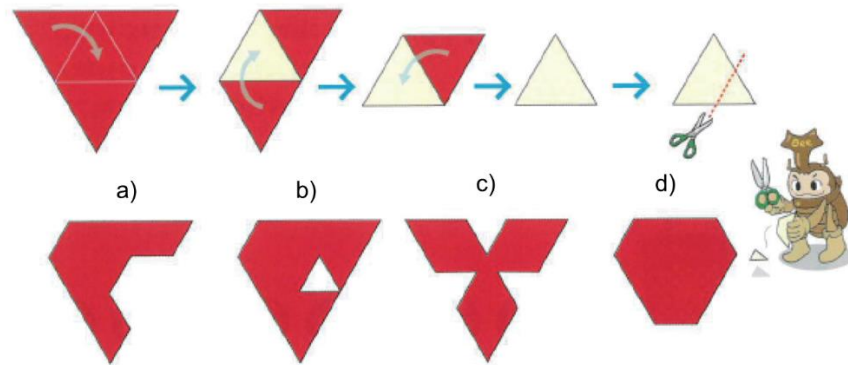
#	#	b	#	b	b	#
#	#	b	#	#	#	#
#	b	b	#	b	b	#
#	b	b	#	#	#	#
#	b	b	#	#	#	#
b	b	#	b	#	#	#
b	b	#	b	#	b	#



[Question 3] “Fold, Cut and Unfold”

The equilateral triangular shaped paper was folded in order and cut as shown in figure. When unfolded the cut paper, which shape is correct, a), b), c), or d) ?

Figure 1



[Question 4] “Participants in Marathon Competition”

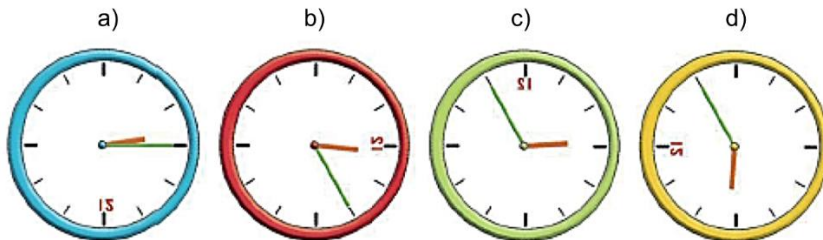
Napat participated in the marathon competition. When he passed the halfway point, he was 6th place from the last one. After that, he was passed by 3 participants. However, he tried his best and passed 10 other participants. Finally, he came in the 3rd place.

How many participants were in this marathon competition?

[Question 5] “Analog Clock Reflected in the Mirror”

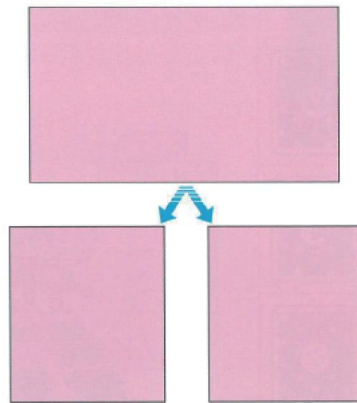
There are four analog clocks reflected in the mirror as shown below.

Which clock is closest to 3 o'clock, a), b), c) or d)?



[Question 6] “Circumference/Perimeter”

Cut the rectangular paper whose perimeter is 180cm into two equal small rectangles. The perimeter of each small rectangle is 128cm. Find the width and length in cm of the original rectangular paper.



[Question 7] “Possible E”

Each letter is a three digit number which divisible by 2. The same letter represents the same number while the different letter represents the different number. What number does “E” represent?

$$\boxed{K} + \boxed{I} + \boxed{D} + \boxed{B} + \boxed{E} + \boxed{E} = 620$$

[Question 8] “30 integers”

There are 30 numbers from 1 to 30 arranged in ascending order. The sequence of the numbers is rearranged according to the following rules.

Rule 1: Place the sum of the first two number at the end of the sequence.

Rule 2: Remove the first 2 numbers.

When the two rules are applied, it counts as one round.

1, 2, 3, 4, , 30

After finish 1st round, the result is

3, 4, 5, 6, , 30, 3

After finish 2nd round, the result is

5, 6, 7, 8, , 30, 3, 7

After finish 3rd round, the result is

7, 8, 9, 10, , 30, 3, 7, 11

Rearrange the sequence using the same rules until there is only one number remaining. Answer below questions.

- (1) How many rounds must be done until there is only one number remained?
- (2) What is the last number remained?