

INFORMATION PACK



KANGAROO MATH COMPETITION

LARGEST MATHEMATICS COMPETITION IN THE WORLD

COMPETITION DAY
18TH MAY

SCAN ME



f Kangaroo Math Malaysia
www.kangaroomath.com.my

ig kangaroomathmalaysia
malaysianeducompetition



INTRODUCTION

The Kangaroo Math Competition is an international school-level mathematics competition that is organized by Association Kangourou Sans Frontieres (AKSF), a transnational educational group based in Paris. Founded in the early 1980s, the Kangaroo Math Competition is currently the world's largest math competition with more than 4 million participants from 96 countries in 2022. Malaysia was inducted into AKSF in 2012 and is sanctioned by AKSF to organize Kangaroo in Malaysia since 2013. The Kangaroo Math Competition in Malaysia has been participated by almost 400,000 participants from 2013 until 2022. In Kangaroo 2022, there were more than 45,000 participants representing over 1,400 schools from all over Malaysia.

OBJECTIVES

- To popularize mathematical enrichment activities among students and teachers in Malaysia
- To allow Malaysian school students to achieve certification and recognition from an internationally prominent education body
- To expose students to interesting math problems designed by internationally renowned math educators
- To allow students to apply their knowledge in Mathematics that they have learned in school

WHO SHOULD PARTICIPATE?

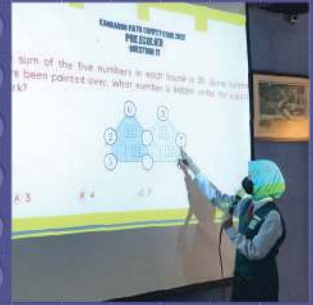
- All school students who would like to increase their understanding and skills in mathematical problem-solving
- Kangaroo is catered to all school students from Year 1 to Form 6 with six different categories with differing levels of difficulty

BENEFITS FOR STUDENTS

- Increases students' interest in Mathematics
- Equips the students with 21st century skills such as problem-solving and analytical thinking skills
- Sharpens students' abilities to answer **Higher-Order Thinking Skill (HOTS) questions**
- Exposes the students to internationally recognised questions
- Offers the students value for their future academic journey

KANGAROO MATH ROAD TOUR

We went to different schools in Malaysia that invited us to talk about our competition. We made it fun by doing some enjoyable activities with the students.



2022 AWARD CEREMONY

Those who achieved the Gold Award were invited to a special award ceremony to celebrate their amazing accomplishment!



COMPETITION FORMAT



20-24 Multiple
Choice Questions



75 Minutes
Answering Time



Paper-based
Competition



Invigilated by
the assigned
Teacher-In-Charge

LANGUAGES

English

Bahasa Melayu

Mandarin

Tamil (For SJKT schools only)

CATEGORIES

Students should be registered into the following categories according to their academic year in 2023/2024 session

There are 6 categories:

- Pre-Ecolier : Year 1 & 2 (Age: <7-8)
- Ecolier : Year 3 & 4 (Age: 9-10)
- Benjamin : Year 5 & 6 (Age: 11-12)
- Cadet : Form 1 & 2 (Age: 13-14)
- Junior : Form 3 & 4 (Age: 15-16)
- Student : Form 5 & 6 (Age: 17 & Pre-University)

COMPETITION PROCEDURE

- The students should only be registered by the designated Teacher-In-Charge
 - Register at www.contesthub.my/register
 - Fill in the teacher's and school's details
 - Choose offline method
 - Fill in the student's details in the **List of Competition**
 - Complete the payment
 - Question packages and Teacher's Guide booklet will be sent to schools or centers
 - On the competition day, the schools will conduct the contest at their own venues
 - Schools are responsible for enforcing the regulations of the competition
 - Schools will send the OMR answer sheets to the secretariat
 - The results will be announced 4 months after the competition
 - The certificate and medal (if any) will be posted to the school one month after the result is published
- There is no online method for individual participants*
- Individual participants should register under their school or join another school as a surrogate candidates*

AWARDS & CERTIFICATES

- Every participant will receive a certificate of participation jointly issued by AKSF, signed by the Chairman of the Board, Ms. Meike Akveld, and Mr. Suhaimi Ramly, Director of Kangaroo Math Malaysia
- Division of KMC Scorers:



TOP 10%
GOLD, SILVER & BRONZE AWARD
MEDAL AND CERTIFICATE



NEXT 40%
HONORABLE MENTION CERTIFICATE



NEXT 50%
CERTIFICATE OF PARTICIPATION

SAMPLE QUESTIONS

PRE-ECOLIER (AGE : 7 & 8)

1. Julia has two pots with flowers of different types, as shown below. She keeps the flowers exactly where they are. She buys more flowers and puts them in the pots. After that each pot has the same number of each type of flower.



What is the smallest number of flowers she needs to buy?

- A) 2 D) 8
B) 4 E) 10
C) 6

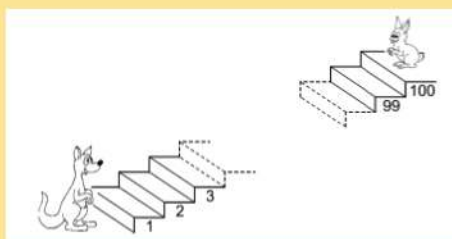
Answer : C

Solution : To obtain the minimum number of flowers to be bought, Julia needs to buy $4 - 2 = 2$ white flowers, $4 - 1 = 3$ gray flowers and $3 - 2 = 1$ black flower. Therefore, she needs to buy $2 + 3 + 1 = 6$ flowers in total.

SAMPLE QUESTIONS

ECOLIER (AGE : 9 & 10)

2. Every time the kangaroo goes up 7 steps, the rabbit goes down 3 steps.



On which step do they meet?

- A) 53 D) 70
B) 60 E) 73
C) 63

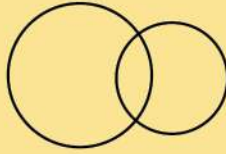
Answer : D

Solution : They have made a total of $7 - (-3) = 10$ steps when they climbed the stairs once together. This means that they have to climb the stairs for $100 \div 10 = 10$ times before they meet each other. It follows that the kangaroo has jumped to $7 \times 10 = 70$ th stair.

SAMPLE QUESTIONS

BENJAMIN (AGE : 11 & 12)

3. By drawing two circle, Mike obtained a figure, which consists of three region (see Picture).



At most how many regions could he obtains by drawing two squares ?

- A) 3
- B) 5
- C) 6
- D) 8
- E) 9

Answer : E

Solution : The greatest number of regions that can be obtained is when the two squares are aligned as follows:

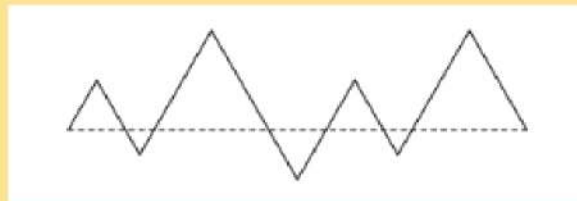


So, the number of regions is 9.

SAMPLE QUESTIONS

CADET (AGE : 13 & 14)

4. In the diagram, the dashed line and the black path form seven equilateral triangles. The length of the dashed line is 20. What is the length of the black path?



- A) 25
- B) 30
- C) 35
- D) 40
- E) 45

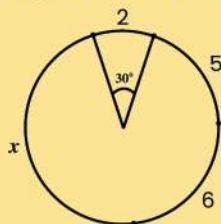
Answer : D

Solution : Every time the black path and the dashed line intersect, they form an equilateral triangle. Notice that the black path represents two sides of the triangle, while the dashed line represents the other side. This means that the length of the black path is twice the length of the dashed line for every triangle. This occurs throughout the black path, hence its total length is twice the length of the dashed line, which is, $20 \times 2 = 40$.

SAMPLE QUESTIONS

JUNIOR (AGE : 15 & 16)

5. A circle is divided into four arcs of length 2, 5, 6, x . Find the value of x , if the arc of length 2 subtends an angle of 30° at the centre.



- A) 7
B) 8
C) 9
D) 10
E) 11

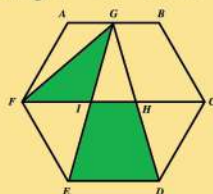
Answer : E

Solution : Since the arclength of 2 subtends an angle of 30° , then the arclength of 1 must subtend an angle of 15° . The total arclength that is given in the diagram is $2 + 5 + 6 = 13$. So, the angle subtended by the total arclength is $13 \times 15^\circ = 195^\circ$. Then, the angle subtended by x is $360^\circ - 195^\circ = 165^\circ$. To find x , simply divide 165 by 15 and we obtain 11.

SAMPLE QUESTIONS

STUDENT (AGE : 17 & 18)

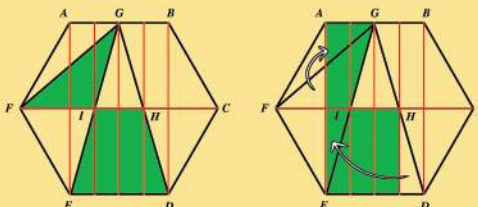
6. Given a regular hexagon ABCDEF. G is the midpoint of AB. H and I are the points of intersection of the segments GD and GE with FC respectively. What is the ratio between the area of the triangle GIF and the area of the trapezium IHDE?



- A) $\frac{1}{2}$ B) $\frac{1}{3}$ C) $\frac{1}{4}$ D) $\frac{\sqrt{3}}{3}$ E) $\frac{\sqrt{3}}{4}$

Answer : A

Solution : We divide the hexagon into eight identical rectangles and four identical triangles. Note that $FC = 2AB$, so the triangle GIF covers 1.5 rectangles while the trapezium IHDE covers 3 rectangles. Therefore, the ratio is $\frac{1.5}{3} = \frac{1}{2}$.



REGISTRATION FEE

10% OFF
EARLY BIRD
RM31.50
PER PARTICIPANT

EARLY REGISTRATION PERIOD:
3RD JAN - 24TH MARCH 2023

NORMAL FEE
RM35.00
PER PARTICIPANT

NORMAL REGISTRATION PERIOD:
25TH MARCH - 14TH APRIL 2023

Payment method:

Online payment (BillPliz) or manual payment (cheque or local order (LO))

IMPORTANT DATES

EARLY BIRD REGISTRATION - 3RD JANUARY - 24TH MARCH 2023

NORMAL REGISTRATION - 25TH MARCH - 14TH APRIL 2023

KANGAROO DAY - 18TH MAY 2023

OMR ANSWER SHEETS DEADLINE - 26TH MAY 2023

RESULT ANNOUNCEMENT - SEPTEMBER 2023

HOW TO REGISTER

Registration can be made at www.contesthub.my

REGISTER NOW!

CONTACT INFO

KANGAROO MATH MALAYSIA

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53300 SETAPAK, KUALA LUMPUR

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