

TANGENTS

VOLUME 1

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ISSUE 1

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JANUARY-APRIL 2014



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TANGENTS is the official publication of Kangaroo Math Competition Malaysia. It is published three times a year and distributed free of charge.

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PUBLISHED BY
KMC Malaysia Secretariat
c/o Ardent Educational Consultants Sdn. Bhd.
No. 100-1, Jalan 2/23A,
Taman Danau Kota,
53300 Setapak, KL.
Phone: 03 41317672
Fax: 03 41490572

PRINTED BY
Printmore Sdn. Bhd.
No. 52, Jalan Brunei Utara,
Off Jalan Pudu,
55100 Cheras, KL.

KMC 2013 WINNERS AWARDED!

The KMC 2013 winners received their medals at five award ceremonies around the country.

There are 10,186 participants in the KMC 2013, representing more than 350 schools from all over Malaysia. Out of these, 991 top students received medals for their excellent performance.

Five award ceremonies were held around the country to celebrate and award these beautiful young minds.

In Kuala Terengganu, Assoc. Prof. Dr. Zabidin Salleh from UMT presented the awards. "Study mathematics to the PhD level," he advised the students.

Prof. Datin Dr. Siti Rahayah Ariffin (pic, third from left), of Pusat PERMATApintar Negara, UKM, agreed. Before



presenting the awards to the winners from Klang Valley, she counseled the students to inculcate love of math in their lives.

The winners from Johor and Melaka received their medals from Assoc. Prof. Dr. Nor Haniza Sarmin (UTM), Vice President of Malaysian Mathematical Sciences Society.

Two ceremonies, at

Penang and Shah Alam, were held in September, officiated respectively by mathematicians Assoc. Prof. Dr. Hailiza Kamarul Haili (USM) and Prof. Dr. Arsmah Ibrahim (UiTM).

Seven students were awarded the Grand Prix for the best performance in each category.

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KMC 2013 in Numbers

10,186 Total number of participants.

357 Number of all participating schools.

263 Highest number of participants, from Kolej Tunku Kurshiah, NS.

2 Number of perfect scorers (Sai Yin Chen in Cadet & Khong Yi Kye in Student).

7 Number of Grand Prix winners.

173 Number of Gold

Medallists.

343 Number of Silver Medallists.

475 Number of Bronze Medallists.

4086 Number of Hon. Mention recipients.

KMC 2013 GRAND PRIX WINNERS**PRE ECOLIER**

MUHAMMAD HILMAN ANAS BIN MOHD ANIS
& NUR AUNI NAZZURA BINTI MOHD NAZRI

ECOLIER

CHRISTOPHER TEH YOONG HERNG

BENJAMIN

TEOH JUN JIE

CADET

SAI YIN CHEN

JUNIOR

TAN WEN YANG JUSTIN

STUDENT

KHONG YI KYE

KMC 2013 GOLD MEDALLISTS**PRE ECOLIER**

CHUNG YING XIN
MUHAMMAD KHAIRUL ABRAR BIN SUKRI
MUHAMMAD HILMAN ANAS BIN MOHD ANIS
NUR AUNI NAZZURA BINTI MOHD NAZRI
SHEE YI RONG
SUHANRAJ SUBRAMANIAM
TERENCE ONG ZHI JIE
TERRANCE CHIA LI YANG

ECOLIER

CHIA CHIAN YUNG
CHIANG YI MING
CHIEN MING MING
CHRISTOPHER TEH YOONG HERNG
HOR YE HONG
IAN GEORGE TAYE CHENG EAN LI JIAEN
LIM LE YING
LOW WEI SHENG
LOW ZHENXUEN, BRANDON
REECE ANTHONY CHAN
RIDA FATIMA
TAN JAY TZE
TAN YI LING
WAN ZHIYANG
YAP XIN WEI

BENJAMIN

AMY TANG SHI DING
CHAN JIA ZHENG
CHEN SZE YUN
CHEW HONG JIN
CHONG ZHENG TAO
DESMOND GIAM
FANG WEI LIANG SAMUEL
FOO SHI HONG
GOH CHUN YEE
HENDREY CHIN KIM YEW
HOR YE HENG
LAI CHENG YI
LIM CHUEN TEK
PATRICK WONG JIAN WEI
SHEN JIA MU
SHIRLEY HONG LI JUON
STUART HENG FU YU
TAM JING XUAN
TAN CHERN LIN, JUSTIN
TEH ZHI REN
TEOH JUN JIE
TEY HE YANG, RYAN
WONG JUN RONG
YAP YONG YIN

(continues on next page)

About the KMC

The Kangaroo Math Competition was started in France in 1991 by Andre Deledicq, a schoolteacher. He was inspired by the success of a similar contest in Australia, hence the name Kangaroo.

In the first few years, the KMC spread to neighboring European countries; later on it grew to other continents. Malaysia was accepted as a member in 2012.

It is currently the largest math contest in the world with more than 6 million participants from 50+ countries taking part every year.

The KMC is organized simultaneously worldwide in March (Kangaroo Day). The next Kangaroo Day falls on **20 March 2014**.

The purpose of KMC is to disseminate a math culture that is fun and engaging.

Kangaroo papers tend to feature problems that are witty and visually fun, allowing access to students from all levels of age and math ability.

Some countries organize international summer camps for KMC winners.

To learn more about the KMC, visit us at kangaroomath.com.my.

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EUROMATH 2014

The Cyprus Mathematical Society and the Thales Foundation is announcing the European Student Conference in Mathematics (EUROMATH) 2014 that will take place on 24-28 April 2014 in Nicosia, Cyprus.

The official website is www.euromath.org.

Thales Foundation is the organizer of the Kangaroo contests in Cyprus.

Students of age 12-18 who may be interested in attending the conference can register, before 1 April 2014, at the website.



The Conference will consist of several workshops and sessions covering multiple

themes, including math application in technology, science, arts, humanities, economics and other fields.

There will also be a theater competition and a poster design competition.

The official language of the conference is English.

For more details, write to info@euromath.org.

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M. Suhaimi Ramly

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Competition Manager

M. Izzan Noorzi

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M. Hazwan M. Adzemi

Nur Syuhada M. Abd Malik
(webmaster)

M. Hafiz Abdurahman

Selected Problems from KMC 2013

Here we present a selection of our favorite problems from KMC 2013:

(Pre Ecolier #20) A square box is filled with two layers of identical square pieces of chocolate. Kirill has eaten all 20 pieces in the upper layer along the walls of the box. How many pieces of chocolate are left in the box?

(Ecolier #19) Baby Roo wrote down several numbers using only the digits 0 and 1. The sum of these numbers is 2013. It turned out that it is impossible to get the same sum with a smaller number of summands of this kind. How many numbers were

written by Baby Roo?

Comment: Although the preceding two problems are meant for the youngest participants, they are quite challenging!

(Benjamin #8) By drawing two circles, Mike obtained a figure, which consists of three regions. At most how many regions could he obtain by drawing two squares?

(Cadet #17) All 4-digit positive integers with the same four digits as in the number 2013 are written on the blackboard in an increasing order. What is the largest possible difference between two neighbouring numbers on

the blackboard?

Comment: For real challenge, we present the following two problems:

(Junior #24) On 22 cards there are written positive integers from 1 to 22. With these cards 11 fractions have been made. What is the greatest number of these fractions that can have integer values?

(Student #24) How many solutions (x,y) , where x and y are real numbers, does the equation $x^2+y^2 = |x|+|y|$ have?

Good luck!

Answers on page 4

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Featured Grand Prix Winner: Khong Yi Kye

The Grand Prix winner for KMC 2013 Student category, Khong Yi Kye, is no stranger to academic competitions.

He has notched up an impressive list of achievements, including leading his school team, SMJK Sin Min, to the first prize finish in the 2012 National Science Challenge.

The team was awarded with a weeklong trip to Stockholm, Sweden, to witness the annual Nobel Prize ceremony.

Any student would be proud of such a credential,

but for Yi Kye, he would not rest easy until he wins the coveted crown jewel of math competitions: a slot in the national team to the prestigious International Mathematical Olympiad (IMO).



Khong Yi Kye (right) with IMO teammate How Si Yu and team guide Maria de Arteaga.

And he did. Last July, he represented Malaysia in

IMO 2013 that was held in Santa Marta, Colombia, an honor he shared with five other Malaysian math wunderkinds. He won a bronze medal at the IMO.

The successes did not come easy: he trained for IMO for 4 years before making it to the national team. No wonder that all this hard work translates to a perfect score in the KMC.

On KMC, he said that the problems are “fun and creative”, and that the KMC “will surely inspire many young math lovers.”

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KMC 2013 GOLD MEDALLISTS

CADET
CHIA TZE TENG
CHONG WEN KAI
CHOONG SHENG HONG
EDMUND SIA LEE CHUNG
FOO SHI QUAN
FOO TSER HANN
GOH YONG XUAN
KAN MAN KIT
KOON SI HUI
LEE JIA JUN
LEE JIAZHE
LEE SHI TING
LEE ZHI WEI
LIEW QIAN HUI
LIM CHENG HONG
LIM HAN SHENG
MUHAMMAD ADLAN BIN JAMALI
NG MIN SHEN
ONG WENG QI
ONG XIN JIONG
OOI ZE YAO
SAI YIN CHEN
SEE JING YIN
SOON JIAN LANG
TAKEDA SHIGENORI
TAN SOON WEI
TEE ZHENG YANG
TEO JIN YEET

JUNIOR

ANG YEE CHIN
CHEAH HIU LAM
CHENG YI CHEN
CHEW JIE HENG
CHIA BIING HANN
CHIEW WAN KAI
CHOO HAO RUI
GOH WEI TI
HOO ZHI YEE
KOW PU ERN
LAW JER DONG
LEE DAI WEI
LEE HAO TIAN
LEE REN GHEE
LEW CHEN CHANG
LIM JI HONG
LIM QIN YONG
LIM YOU SHENG
LIM ZHEN ZONG
MOHAMAD FAIZAL BIN
MOHAMAD FAUZI
MUHAMMAD FAIZAL BIN
HAMIZAT
MUHAMMAD IZZAN BIN IZHAM
MUNIRAH BINTI SHARUDIN
NABILAH BINTI ABDUL RAHMAN
NG TZE DONN
NICHOLAS WONG MING CHEN
OOI WEY QUAN
POH CHUN HOU
SI ZHI WEN
SOH YIT HAN
TAN CHUIN WEI
TAN KE YI
TAN SONG KHAI
TAN WEN YANG JUSTIN
TAN YEE JIAN
TAN ZHI JONG
TAY YEE CHOON
TEH ZEE HOE
THEAM WING CHUN
WONG KA YEE
WONG YUHAN
YONG ZHENG XIN
YUAN SIN YI

(continues on next page)

KMC 2013 GOLD MEDALLISTS

STUDENT

ALVIN SOO CHUN KIT
 AMARPREEL KAUR A/P GURCHARAN SINGH
 CHAN MING WEI
 CHAN XIAO YEN
 CHEAH WEI HAN
 CHIA KEH CHUN
 CHIN KWOK YEE
 FIRDAUS HAFIZI BIN JAMALUDIN
 GOH CHI XIAN
 GOH JASON
 GOH REUN GUAN
 HO JING QIAN
 JASMAN CHAI YI HAO
 JOANNA CHOW LEI KUIN
 JUSTIN LIM KAI ZE
 KAM HENG LAM
 KEK YEONG LE
 KHONG YI KYE
 KOH WEN JIONG
 KRISTINE YEE TZE LIAN
 LEE CHIN TING
 LEE KIAN BOON
 LEE YOUNG KYU
 LEO SEE WEI
 LIM KAH JUN
 LIM YE ANG
 LIM YUN KAI
 LOU CHAN HUI
 MICHAEL LIAW JIA YUNG
 MICHELLE NG WEI JEAN
 MUHAMMAD IKRAM BIN MUHAMAD HER
 MUHAMMED SHAHMI BIN SULEIMAN
 NG BENN JAZZ
 NG BOON LONG
 NG JIA YING
 NG WEI HUAT
 NUR SHAUQIL AMIN BIN MUHAMAD SANUZI
 NURSYAMIMI BINTI MULANA
 NURUL IZZATY BINTI MOHD KAMAL
 OOI KEE AUN
 PONG YU CHENG
 QUAT YEAN CHU
 SITI FATIMAH BINTI MOHAMED SALLEH
 TAI YEE LING
 TAN BENG JIN
 TAN CHEK KUAN
 TAN HAO HAO
 TAY WAN WEN
 TEH ZHUO LI
 TEOH JACK YANG
 TEOH JING XIANG
 UNG CHERN KAE
 YEOH ZI LIANG
 YEOH ZI SONG

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Published by: Ardent Educational Consultants Sdn. Bhd., No. 100-1, Jalan 2/23A, Taman Danau Kota, 53300 Setapak, KL.

Printed by: Printmore Sdn. Bhd., No. 52, Jalan Brunei Utara, Off Jalan Pudu, 55100 Cheras, KL.

From the Editor



KMC 2013 was a success. For this, I must thank everyone involved: participants, teachers, parents, school administrators, supporters, staffs (and their family members), volunteers, vendors, everyone. Special thanks to the Board of *Association Kangourou sans Frontieres*, for entrusting my team to organize an event of this scale in Malaysia.

Even in the first year of competition, we managed to attract more than 10,000 participants. No mean feat, given that people in Malaysia have virtually never heard of Kangaroo Math before. When we first mooted the idea in 2012, some well-meaning people advised us to start small, focusing on urban areas and selected schools to kick-off the project. Fortunately, I pooh-poohed the advice, and opened KMC to anyone interested, from any school, anywhere in Malaysia. I'm glad that my decision turned out to be correct.

And don't forget to mark your calendar: **20 March 2014**, the upcoming Kangaroo Day!

M. Suhaimi Ramly

KMC Booklets

The KMC Secretariat will publish two booklets to help you prepare for KMC 2014:

**Kangaroo Math
 Competition 2008-2012:
 Problems and Solutions
 for Primary School**

&

**Kangaroo Math
 Competition 2008-2012:
 Problems and Solutions
 for Secondary School.**

What are the contents of the booklets?

The booklet contains all problems and solutions for all primary (resp.

secondary) categories in KMC for the previous 5 years (2008 to 2012). Suggested solutions are provided at the end. Price is **RM15 per booklet**, not including shipping.

The booklets are reprinted with permission from MATH KANGAROO in USA NFP, the organizer of the KMC in the United States.

How do I order?

You may order online through our website

kangaroomath.org.my/books

or send an order form (downloadable from that website) via mail, email or

fax. We accept credit and debit card for online purchases. For order form, we accept cheque, postal order, money order, bank-in or online fund transfer. We also accept Local Order from schools.

When will I receive my order?

We aim to process your order on the next working day upon receipt of payment. Shipping via courier takes 2-5 working days, depending on area.

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Answers (page 3)

52, 3, 9, 702, 10, infinite.