

From the President's Desk...



It gives me great pleasure to write this short message for our latest issue of AMESA News. As I write this message, regions are busy with their reviews of the grade 12 Mathematics and Mathematical Literacy papers. This activity by our AMESA regions is an important teacher development activity and our input as AMESA is always eagerly awaited by the Department of Basic Education. Despite not having any major sponsors since 2014, AMESA continues to exist as the key role player in Mathematics Education in South Africa and will continue to do so. Our regions are fairly active and I call upon all

our members to get more involved in our regional and branch activities. We also need to recruit more members so that the long term sustainability of AMESA, as an independent organisation, is assured. In July 2017, we had a very successful National Congress at Nelson Mandela University in my home town, Port Elizabeth. This Congress was attended by 920 members and has shown the way for future AMESA Congresses.

I am in my second and final term as AMESA President with just seven months left. It has been a very rewarding, but at times challenging, experience to serve as your President. Let me take this opportunity of wishing all our members and the Mathematics Education community a very enjoyable festive season and a prosperous 2018.

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Editor's Comment...



In this issue, we share with our members who did not attend 23rd AMESA National Congress how our President was honoured for working hard to keep AMESA alive in the Eastern Cape and South Africa. In addition, North West and Limpopo regions share with the AMESA members activities in their regions. I commend North West Region for show casing the hard work they are doing in their region. We are grateful to our sponsors Red Pencils, CASIO, SHARP, Cambridge University Press, Oxford University Press, PEARSON, Metropolitan and many more for their continued support in our regional and national activities. Enjoy reading!

If you wish to contribute an article or share AMESA activities in your area, write to me at: vicepresident@amesa.org.za.



CHANGES IN THE NATIONAL COUNCIL (2016-2018)

A new National Treasurer was elected during the 2017 National Congress in PE (see his profile below). Four of the AMESA regional representatives have been replaced by colleagues in their regions. Below are the new regional representatives from North West, KwaZulu-Natal, Limpopo and Mpumalanga respectively.



Manare Setati is the new Treasurer for the National Council (2017-2019). Manare started teaching in primary and secondary schools from 1991 and then ended up teaching at the university level. He has taught at post-matric level for about eighteen years. In addition, Manare has been exposed to a number of challenges in mathematics education. The interventions that have taken place in his life have guided his teaching strategies and approaches for different students. With these strategies, he has influenced, motivated and inspired students to learn mathematics in and out of the classroom. Further, Manare uses Bloom's Taxonomy approach to teaching practice. Currently, Manare is a Mathematics Education Consultant at Ukuqonda Institute, involved in teacher development and materials development and has been doing this work with two other NGOs since 1997. I joined the mathematics education community in the days of NOTMO (Northern Transvaal Mathematics Organisation) and have been part of the AMESA for 21 years now.



Kgomotso Pilane is the current North West AMESA Chairperson (2016-2018) and the regional representative to the National Council. Kgomotso Pilane is working at Kloofview Primary School. She is a Mathematics HOD for the intersen- phase. She has been teaching since 1994. She specialized in Mathematics and Natural Sciences. She completed her degree with UNISA and did methodology of Mathematics. She furthered her studies with University of Potchefstroom and did Mathematics Literacy and passed it with distinction. She entered the NTA for excellence in primary teaching in 2003 and proceeded to provincial level. She is currently the chairperson of AMESA in the Northwest region since June 2016. She lives in Rustenburg (NW).



Stthembisio Khanyile is the new AMESA KZN Chairperson and KZN representative on the AMESA National Council. He started teaching in 2001 specializing in Mathematics and Physical Sciences. He, then, did his B-Tech in Mathematics and Physical Sciences followed by Honours in Mathematics Education. He is currently busy with his Masters in Mathematics Education with UKZN. He was HOD (Mathematics & Sciences) at his school before being appointed as Subject Advisor for Mathematics in his district. He is currently serving as Deputy Chief Education Specialist (DCES) for Mathematics and Computer Sciences in the Ugu District. He serves in various capacities such as a DBE Master trainer and SAMF solving problem facilitator for the South African Mathematics Challenge.



Diapo Makhubela is the new Regional representative from Mpumalanga. Diapo is currently a Deputy Principal at Mphalali Senior Secondary School based in Kwaggafontein East Circuit in Nkangala District. He teaches Grades 10-12 Mathematics. He served in the department for six years as a cluster leader and gathered a lot of experience as a senior marker from 2009-2012. He obtained his Higher Diploma in Education at Ndebele College of Education in 2000. Diapo furthered his studies at TUT, UP and UKZN obtaining B-tech Educational Management, ACE in Mathematics, ACE in technology Education respectively.

Diapo was elected AMESA Mpumalanga Chairperson in May 2017 after serving for 4 years as the Secretary and six years as a Branch Chairperson. In the AMESA National Congress held in Mpumalanga in 2016, he shared the stage with Professor Mogege as a guest speaker representing teachers perspective on *'bringing back African pride through Mathematics'*.





Sekagana Motimele is the new Regional representative for AMESA Limpopo.

AMESA PRESIDENT HONoured AT THE 23rd NATIONAL CONGRESS 2017



By Mzwakhe Sokutu

It give me great pleasure to write about AMESA stalwart Dr Vasuthavan Govender (also known as Nico to members of AMESA) who was honoured by AMESA Eastern Cape at the 23rd National Annual Congress of AMESA in July 2017 in Port Elizabeth. He has been the member of the Association from its inception in 1994, having been a member of MASA and TASA (two of the founder organisations) of AMESA. Dr Govender kept the local “fires” burning and was never in a rush to lead in higher ranks but cared for its development at grassroots levels. He led vibrant the PE branch of AMESA for many years, converting a lot of teachers into seeing the value of belonging to the association as well as importance of empowering the nation through mathematics teaching.

Vasuthavan climbed the AMESA leadership ladder as the Deputy Chairperson of AMESA Eastern Cape in 2007 and then as Chairperson of AMESA Eastern Cape from 2009 until 2013. He represented AMESA Eastern Cape on the AMESA National Council from 2009 until 2012 when he was elected as AMESA National Vice-President. In 2014, Vasuthavan became the National President of AMESA, a position that he holds until the next AMESA National Congress.

Vasuthavan has been a very selfless leader, and has mentored others in the Eastern Cape and beyond. He lives AMESA and is totally involved and willing to take the initiative for the benefit of the Association. His dedication has put AMESA Eastern Cape in the limelight by him becoming the first person from the Eastern Cape to be elected as the AMESA National President.

Congratulations to Vasuthavan and keep up the good work. May your association with AMESA and Mathematics Education continue for the foreseeable future!



Our President with Athol Trollip (Mayor of Nelson Mandela Bay at Congress 2017 Opening function)

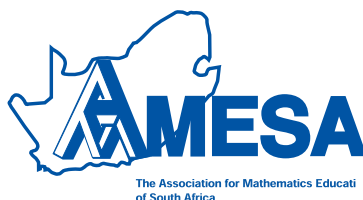


Our President with his wife Premela at Congress 2017 Gala Dinner



PROBLEM SOLVING WORKSHOP (NORTH WEST REGION)

Compiled by: Kgomoiso Pilane (AMESA North West Chairperson)



DATE: 18 AUGUST 2017

VENUE: RATHEO PRIMARY SCHOOL

SUB-REGION: MOSES KOTANE

REGION: BOJANALA

Schools attending this workshop:

1. Bakubung Primary 2. Baphalane Primary 3. Batlhalerwa Primary School 4. Botman Primary School 5. Dikweipi Primary 6. Dinkwe Primary 7. Holy Family Primary 8. Kloofview Primary 9. Leema Primary 10. Maatla Sec Primary 11. Machama Primary school	12. Madima Primary 13. Madutle Primary 14. Makgopaneng Primary 15. Makgope Primary 16. Makoshong Primary 17. Maud-Zibi Primary 18. Module Primary 19. Molotsi Primary School 20. Mokgaloana Primary 21. Mokhine Primary 22. Montsamaisa Primary	23. Morongwa Primary 24. Mperebere Primary 25. Mphuphuthe Primary 26. Nonceba Primary 27. Ratheo Primary 28. Sedumedi Primary 29. SG Ntuane Primary 30. Tshirologang Primary 31. Tshose Primary 32. Tshwara-O- dire 33. Ramokoka Primary
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PROGRAMME: Day One

ITEM NO.	ACTIVITY	RESPONSIBLE PERSON
1	Opening hymn and Prayer	Educator-Nkwanem Dikeledi Annah from Batlhalerwa PS
2	Welcome note	Mr Mogoshane- SES Moses Kotane
3	Roll Call - AMESA roll call - SAMF roll call	Secretary
4	Introduction of Council Members and SAMF Facilitator - Thibodi OD - Secretary - Morake E - Mr Maseka - SAMF - Mrs Pilane - Chairperson - Mr Kolokoto - SES Moses Kotane west	Chairperson- Ms Pilane



Facilitator and teacher involvement

In the introduction stage Ms Hilda Moalusi from Morongwa Primary School presented an ice-breaker which was a problem she encountered when marking her learners activity. The activity was “277 divided by 27”. Hilda reported that learners wrote the problem as “277 divided by 72”. She explained that the learners lacked procedural competency and conceptual understanding resulting in the learners writing the problem incorrectly.

Pictures from day one of the problem solving workshop



Day Two

The workshop started late due to the late arrival of teachers. Only about half of the teachers turned up on day 2. Some tendered apologies after the first day and others just remained silent and absented themselves. It was very disappointing because of all the preparation involved for the workshop. However, those who were absent on day 2 missed out on some very interesting and informative work. Tea was served before the starting at 9:00. Facilitation went on until 12:00. There was a break for lunch and thereafter teachers were assessed from 12:30 to 13:30. All participants who attended for day 2 filled in evaluation forms.





The participant, on the left, demonstrates how he solved a problem differently when compared to others.

The problem was “How many squares (of all sizes) are there on a standard 8 x8 chess board?”

Pictures from day 2 showing teachers actively involved



SOME CHALLENGES EXPERIENCED

1. Some participants declined at the last minute to attend the workshop for various reasons, disregarding the processes and the efforts involved in arranging the workshop.
2. Some teachers did not attend the workshop on the Saturday and, thus, did not do the assessment activities associated with workshop.
3. A drop in attendance on the Saturday means that the region has had to deal with fruitless and wasteful expenditure, especially with regard to catering, something which the North-West region (and other regions) can ill-afford.



RECOMMENDATIONS BY THE NORTH-WEST REGION

1. The North-West Region would like SAMF to monitor our workshops so that they see whether we are moving in the right direction in problem solving. Further, SAMF should acknowledge the participation of schools, facilitators and organisers of the workshop.
2. SAMF should consider the inflation rate when they recommend catering for the participants. AMESA is going an extra mile to top up the catering of which they are not reimbursed.
3. AMESA needs feedback on how the processes unfold up to participants receiving certificates.
4. The Problem Solving Manual should be updated to meet the current challenges in the teaching and learning of mathematics..
5. More workshops are needed since the NW region very vast and the LOC is forced to divide big districts into sub-districts.
6. AMESA North West, would in future, request that the two days for workshop be during the week as teachers do not want to come on Saturday. However, this would depend on getting Departmental approval.

LIMPOPO REGIONAL CONFERENCE 2017

Compiled by Manare Setati

Venue: MASTEC (Seshego Campus)
Date: 28 & 29 April 2017
Theme: Restoring the dignity of mathematics learners through quality teaching and learning

In line with the National Congress theme, AMESA Limpopo holds a regional conference with the same theme as the National Congress each year. It is believed that this can help emerging presenters to get a feedback of their intended presentation so that they can improve where possible. It is with this view in mind that the regional conference is always be held before the National Congress every year.

This report provides a bird's view of planning, and the execution of the conference that took place in 2017. Early in the year in the second or third week of the academic year (school), the executive issue a circular to school providing the AMESA year activities, including the conference, seminar, competitions and any possible branch activity available at the time of issuing the circular. Included in this circular is the theme, venue and the cost of the regional conference. This is followed by invitation for presentation proposal from local and outside of the province.

Potential sponsors were approached and formal requests were written to those who were willing to look into the sponsoring idea. Finally, Casio, Via Afrika and Vivlia offered to provide:

NAME OF SPONSOR	DONATED ITEMS	MONETARY VALUE OF ITEMS
Casio	200 Notepads (labelled)	R5 000,00
Vivlia	200 Notepads (labelled) 200 Folders (labelled) 200 Pens	R5 000,00
Via Afrika	200 Notepads (not labelled) 200 "Goodibags" (labelled)	R5 000,00



Each of these sponsors was provided an hour presentation opportunity. Five publishers registered for exhibition space and were provided the space on the 2 days of the conference.

Casio did a very exciting CASIO calculator presentation and Vivlia showed teachers how to use manipulatives in a senior phase mathematics classroom which left participants asking for more. The region secured a range of presenters for the conference, including highly experienced and novice presenters: Both highly experienced; novice presenters, including plenary speakers, workshop presenters and the How I teach presenters. Presenters were from primary and secondary school teachers, subject advisory services, NGOs and Universities.



◀ **Ray Duba** (picture alongside), a former president of AMESA was also in attendance. Altogether 178 delegates attended the conference, including 13 presenters and one first timer, **Ms R T V Ramashala**, a foundation phase teacher (picture below).



◀ **Steve Muthige** former AMESA Limpopo Chairperson (left)

▶ **Dr David Sekao** (Plenary speaker from the DBE)



Other pictures from the Conference



Sekagana Motimele the new Regional representative for AMESA Limpopo



2017 LIMPOPO REGIONAL CONFERENCE PROGRAMME

Friday - 28 April 2017					
Time	EVENTS				
08:00 - 10:00	Registration				
10:00 - 10:30	TEA			Venue: Dining Hall	
10:30 - 11:00	Opening Ceremony			Venue: Seminar Room 2	
11:00 - 12:00	Plenary Presentation: Dr. David Sekao (DBE National) <i>“Restoring the dignity of mathematics learners through quality teaching and learning”</i>			Venue: Seminar Room 2	
12:00 - 13:00	Plenary Presentation: Mantombi Kgaka <i>“Mathematical Misconceptions in the Intermediate and Senior Phases which Impact on Performance in the FET Phase and Beyond”</i> .			Venue: Seminar Room 2	
13:00 - 14:00	LUNCH			Venue: Dining Hall	
14:00 - 15:00	JAMES RALPH/CASIO: Mokonyane				
	CASIO CASIO 4 U (Using Casio Calculator) CASIO				
	PARALLEL SESSIONS				
	GET			FET	FET Maths Literary
	Foundation Phase	Intermediate Phase	Senior Phase		
15:00 - 16:00	Introducing Basic Operations in primary schools	Practical ways of teaching Volume and surface area.	VIVLIA Senior Phase Manipulatives	Error commitment	
	Betty Chewe	Sekgana Motimele	Palesa Tsueabeane	MS Mabale	KE Mathekga
16:00 - 17:00	Branch Meetings				



Saturday - 29 April 2017

Time	EVENTS				
	PARALLEL SESSIONS				
	GET			FET	FET Maths Literary
	Foundation Phase	Intermediate Phase	Senior Phase		
08:00 - 09:00	How I teach: Doubling and Halving	Teaching Mathematics with Technology	The Use of Algebra Tiles to Concretise Algebraic Concepts	Financial Mathematics	Measurement
	RTV Ramashala				
09:00 -10:00	Addition & Subtraction Using building up & breaking down				
	Charlotte Galane	Mabore Lekalakala	Mantombi Kgaka	L Nengovhela	KE Mathekga
10:00 - 10:30	TEA			Venue: Dining Hall	
10:30 - 11:30	Plenary Presentation: Dr. Sello Makgakga (UNISA) Venue: Main Hall “Twinning of two Grade 11 mathematics teachers as strategy for change in practice”				
11:30 - 13:00	Regional AGM				
13:00 - 14:00	LUNCH			Venue: Dining Hall	



SCIENCE WEEK (NORTH WEST REGION)

Compiled by: Kgomots Pilane (Northwest AMESA Chairperson)

VENUE: Milner High School (Klerksdorp)

DATE: 12 August 2017

THEME: Mathematicss, the future of prediction

In the Science Week, there were five Mathematics activities namely the Challenge, Posters, Projects, Speeches and Poetry recital. The FET learners only did only speech and poetry activity. Most schools enrolled their learners for the Challenge.



Learners writing the Challenge



Teachers assessing mathematics posters



A learner busy with her poetry recital



A learner with his own mathematical creation



THE SOUTH AFRICAN MATHEMATICS TEAM COMPETITION

(Report compiled by Vasuthavan Govender, President of AMESA)

The South African Team Competition (SAMTC) is a National Competition organised by SAMF. The competition is sponsored by the Actuarial Society of South Africa (ASSA). Each team comprises 10 members and should be learners from different schools. There are two sections to the completion, a junior section for grade 8 & 9 learners and a senior section for grade 10 - 12 learners. This year the competition took place on Saturday 9 September and more than 50 teams participated in each section.

The SAMTC consists of two parts:

An individual round

In this round, learners must answer, as individuals, 15 Mathematics Olympiad type questions in one hour. These 15 questions are worth 100 marks. These questions are marked locally and the results submitted to SAMF

Team round

The team round consists of 10 “difficult” questions, each worth 100 marks. Learners have to work as a team to get the 10 solutions to the questions. The team answers are scanned and emailed to the SAMF in Pretoria where the papers are marked.

Results of the 2017 Competition

Junior Teams

1st Wits Siyanqoba A
2nd Boland A
3rd Western Province A

Senior Teams

1st Western Province A
2nd Eastern Cape PE
3rd Gauteng North A

Incidentally, the Eastern Cape PE team which came second in the Senior Competition was coached by the current President of AMESA. I would like to encourage all AMESA regions to participate in this important competition in 2018. Full details on how to take part in the competition may be obtained from Herman Bosman at phone number 021-3929316 or email address: herman@samf.ac.za



Learners participating in the South African Mathematics Team Competition in Port Elizabeth



NORTH WEST REGIONAL CONFERENCE 2017

Report compiled by Kgomotso Pilane

Venue: Sol Plaatjie High School
Date: 20 May 2017

The North West region had its successful Annual Conference on the 20th May 2017 at Sol Plaatjie High School. The venue is situated in Mahikeng, Ngaka Modiri Molema District. The programme director was Mr Malibe from SES of FET at Ngaka Modiri Molema District based in Mahikeng.



Sol Plaatjie High School



Mr Malibe



Mrs Mojafi

Mrs Leketi (picture below) from MST Department-Mahikeng gave a word of encouragement to the delegates. She cited the MST goals and the National Development Plan as important strategies to improving education and Mathematics in particular.



“The MST goals should be understood in the context of the main objectives of the National Development Plan (NDP) (2010-2030) to eliminate income poverty and reduce inequality by 2030. One of the three priority objectives of the National Development Plan (NDP) (2010- 2030) is improving the quality of education, skills development and innovation. Action Plan 2019-Towards Schooling 2030 outlines what the sector will be doing to make Grade R to 12 schooling better. Within this plan, seven of the 27 goals as stipulated are applicable to MST. These are in particular Goal Number 5: *Increase the number of Grade 12 learners who pass mathematics*; Goal Number 8: *Improve the average performance in mathematics of Grade 6 learners* and Goal Number 9: *Improve the average performance in mathematics of Grade 8 learners*”



The North West Regional Chairperson, **Kgomotso Pilane** (picture right) declared the conference officially opened. In her address, she stated that “AMESA is the voice of Mathematics Education in South Africa. The Association represents the interests of its members and of the discipline at Provincial/ Regional and National level”. AMESA strives for better teaching, learning and greater interest in Mathematics at all levels. In July 2017, AMESA will host its 23rd National Congress at Nelson Mandela University in Port Elizabeth, Eastern Cape. AMESA NORTH WEST last hosted the Congress in 2012 at North West University (Potchefstroom Campus) and is due to host its next National Congress in 2021.



Prof Percy Sepeng from North West University gave the Keynote address. In his address, he mentioned the PGCE teachers that we normally call the “Fundza Lushaka” teachers. He said these teachers are named after the scheme that finances them in their studies. In addition, he said these teachers are well resourced with everything that a good teacher requires.

“Africanisation is about embracing our African heritage and developing a sense of loyalty towards Africa as a continent. Instead of talking about Africanising Curriculum, academics should turn their focus on *Decolonising the Curriculum*. *Decolonising Curriculum* the Curriculum at Universities will require a solid demand in change by the masses who consume such a product”



EduSci Mat official conducting a workshop



EduSci Mat image





The Maths Coordinator of Mahikeng, Patricia Walaza introduced the LOC and AMESA Regional Structure to the audience (above)

More than 720 delegates including Regional and LOC structures attended the regional conference. The LOC had initially estimated +500 delegates will attend the conference, hence they request for donation of 500 paraphernalia from the main sponsors CASIO, SHARP and Cambridge University Press. However, response from the teachers exceeded the LOC's expectations with some schools bringing more than four delegates. Teachers from +200 schools across the province attended the conference, thanks to a rigorous advocacy made by all Subject Advisors during their respective PFS's. The Number of Secondary School teacher attending was better than all the previous years, i.e. teachers started to realise the value and the importance of attending AMESA conferences. Amongst these delegates were school principals who influenced their staff to become AMESA members. The large number of delegates attending the conference is evident in the pictures that follow:



A different view of the Sol Plaatjie High School hall full of Mathematics teachers



Statistics of attendance was as follows:

Foundation Phase:	282
Intermediate Phase:	201
Senior Phase:	105
FET Maths:	37
Mathematical Literacy:	26
LOC + Presenters:	70
TOTAL:	721

CONTENT WORKSHOPS - PARALLEL SESSIONS

Presentations were from Foundation, Intermediate, Senior and FET Phases. There were presentations in the FET phase for both Mathematics and Mathematical Literacy. We managed also to have two parallel sessions of one hour each. The Mathematics content included:

Phase	Mathematics Content
Foundation	Time and Number sense, doubling and halving; Fractions & Mental Calculations;
Intermediate	Integers & Area and Perimeter of 2Ds Problem solving & calculator basics by Casio using the emulator
Senior	Integers & Area and Perimeter of 2Ds
FET	Developing and understanding the concept (pie) & Categorising questions according to different levels of cognitive demand; Trigonometry - compound and double angles & Interpretation of Algebraic Functions; and Policy issues Exam Guideline & Assessment Taxonomy levels when setting exams. Problem solving & calculator basics by Casio using the emulator



More pictures from the North-West Regional Conference





PUBLISHERS

The North West AMESA Regional Conference would have not been successful without the publishers continually support both in the regions and nationally. The publishers enjoyed the presence of Mathematics teachers and their participation in their display stands and in the workshops. The following publishers, Red Pencil, CASIO, SHARP, Cambridge University Press, Platinum, Metropolitan, Oxford University Press and PEARSON showcased their products and donated towards the running of the Conference. We are grateful to them for their assistance and support.



RED PENCIL



CASIO



Cambridge University Press



Pearson



ICONIC Maths (Connie Skelton)



Metropolitan Life Insurance



Oxford University Press



Challenges

- Delegates only register for the conference in the morning and therefore management of time becomes a crucial factor.
- Administrative tasks such as membership renewal and conference registration tends to be difficult at times. Most schools are institutional members and tend to send more than 4 delegates to regional conferences; the situation had improved when compared to 2016.
- More sponsorship is needed to support the conference. The Committee did not secure a catering sponsorship because the names and numbers of delegates could not be confirmed in advance. Most of the delegates registered in the week leading up to the conference, making planning more difficult.
- Due to high turnout of delegates, breakfast was a challenge but the committee managed to sort out the problem well in time for lunch. The region incurred additional expenses due to the increase in numbers.
- Most sponsors delivered their sponsorship material on the day of conference but some after the conference, thus making it difficult to send material to delegates, post-conference.
- Due to delegates not registering well in advance, participation certificates could not be printed in time.
- There was a delay in sending schools proof of payment due to the absence of the treasurer at the conference. Proof of payment was only sent after the conference.

ACHIEVEMENTS

- The support for AMESA North-West regional conferences is increasing annually.
- There were a number of new schools supporting the conference.
- The Senior Education Specialists (SEs) from the district offices contributed positively to the regional conference by encouraging their teachers to attend the conference. Most of the SEs also did presentations.

CONCLUSION

The conference was a huge success and the more than 700 delegates went home very happy, having learnt a great deal. The North-West region is looking at attracting 1000 delegates for its 2018 regional conference and is counting on more support from the national office of AMESA.



THE MAN WHO KNEW INFINITY

(Report compiled by Vasuthavan Govender with the help of Wikipedia)

Earlier this year, a film called “*The man who knew infinity*” was shown on DSTV. This film is based on the life of Srinivas Ramanujan who was born on 22 December 1887. He had very little formal training in pure mathematics but made very significant contributions to Mathematical Analysis, Number Theory, Infinite Series and Continued Fractions, including solutions to mathematical problems considered unsolvable. Initially, Ramanujan worked in isolation but was quickly recognised as a talented mathematician. He was sent to Cambridge University in the UK, in 1913, where he worked with English mathematician, GH Hardy. However, due to ill health, he returned to India in 1919. He continued his work until his death on 26 April 1920.



During his short life, Ramanujan independently compiled nearly 3,900 results (mostly identities and equations). Many were completely novel, original and highly unconventional. The number 1729 is known as the Hardy-Ramanujan number after a famous visit by Hardy to see Ramanujan at a hospital.

In Hardy's words:

“I remember once going to see him when he was ill at Putney. I had ridden in taxi cab number 1729 and remarked that the number seemed to me rather a dull one, and that I hoped it was not an unfavourable omen. “No”, he replied, “it is a very interesting number; it is the smallest number expressible as the sum of two cubes in two different ways.”

The two different ways are: $1729 = 1^3 + 12^3 = 9^3 + 10^3$

Comment

There are Ramanujan's all over South Africa, in every village and town, waiting to be noticed, discovered and nurtured. It is our duty as Mathematics teachers and AMESA members to identify and nurture the mathematical talent in our schools and communities. Please let your subject advisor or AMESA branch/region chairperson know of such talent or potential in your schools. AMESA will attempt to get more support to develop these top learners.

Srinivas Ramanujan and his magic square

We know that Srinivas Ramanujan was born on 22 December 1887 or 22 - 12 - 1887.

We can use these numbers to form a magic square:

22	12	18	87
88	17	9	25
10	24	89	16
19	86	23	11

Now use your own birth date to create your own magic square!



Obituary

It is with deepest regrets that we inform AMESA members of the passing away of Donald Katz. We are proud of the work he was doing as an AMESA member. Donald was instrumental in the Northern Cape region hosting the National Congress in 2014.



Tribute to the late Mr Donald Katz by the AMESA President Vasuthavan Govender

"It is with great sadness that I write this tribute on behalf of AMESA on your late husband Donald. Donald has been a stalwart member of AMESA in the Northern Cape and has been instrumental in initiating a number of Mathematics projects for the benefit of Mathematics teachers and learners. I met Donald in 2014 when Northern Cape hosted the 20th Annual Congress of AMESA. Donald was one of the key LOC members and ensured that a large number of teachers from the Northern Cape attended what was a very successful Congress. Donald has been at the forefront of AMESA's campaign to work with our provinces for the betterment of Mathematics teaching and learning. He took this campaign very seriously in the Northern Cape by virtue of his position as Mathematics Subject Planner and Chairperson of AMESA in the Northern Cape. He leaves behind a big vacuum, which we are sure that others in the Northern Cape are able to fill as a result of his mentoring role. AMESA will miss Donald very dearly and we wish his family great strength going forward. We know that this will be difficult. However, it was his time to leave our beloved Earth and he has gone to a higher place. Let us cherish the good moments that we had with him".

It will be appreciated if we can receive information about AMESA members who have recently passed away in order to honour their hard work in AMESA. A brief description of their AMESA involvement and a recent photograph will be appreciated.

Send the information to vicepresident@amesa.org.za



AMESA NATIONAL COUNCIL 2016 - 2018

Name	Office	Elected	Cell no.	E-mail
Executive				
VG (Vasuthavan) Govender	President	2016	082 341 6060	president@amesa.org.za
Busisiwe Goba	Vice-President	2016	073 848 3377	vicepresident@amesa.org.za
Gary Powell	Secretary	2016	083 254 5682	secretary@amesa.org.za
Manare Setati	Treasurer	2017	072 224 4787	treasurer@amesa.org.za
Rajendran Govender	Co-opted member	2017	082 451 3648	rgovender@uwc.ac.za

Regional Representatives				
Mzwakhe Sokutu	Eastern Cape	2013	073 158 3609	mzwakhesokutu@yahoo.com
Annari Milne	Free State	2015	083 444 7963	freestate@amesa.org.za
Freddy Tlhavani	Gauteng	2015	078 458 7006	gauteng@amesa.org.za
Sithembiso Khanyile	KwaZulu-Natal	2017	083 746 2833	kzn@amesa.org.za
Sekagana Motimele	Limpopo	2017	083 414 9155	limpopo@amesa.org.za
Diapo Makhubela	Mpumalanga	2017	076 947 5572	mpumalanga@amesa.org.za
Peace Mojaki	Northern Cape	2013	078 517 5513	northencape@amesa.org.za
Kgomotso Pilane	North West	2016	082 399 5478	northwest@amesa.org.za
Rajendran Govender	Western Cape	2017	082 451 3648	westerncape@amesa.org.za

MEMBERSHIP

Will members please note that should their postal address change, to PLEASE let the Membership Secretary know as soon as possible of the change so that the member can continue getting all the publications that they are entitled to as a paid up member.

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