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Curriculum GET Minute: DCG 0001/2020

To: Deputy Directors-General, Chief Directors, Directors, Heads: Curriculum Support, Heads: Management and Governance, Circuit Managers, Deputy Chief Education Specialists, GET Coordinators, Intermediate Phase Subject Advisers, Senior Phase Subject Advisers and Principals of all ordinary public and independent schools

Subject: South African Mathematics Challenge for Grades 4–7 and South African Mathematics Olympiad for Grades 8 and 9

1. The **South African Mathematics Challenge (SAMC)** is a Mathematics opportunity for learners in Grades 4 to 7 and the **South African Mathematics Olympiad (SAMO)** is a Mathematics opportunity for Grades 8 and 9 learners. The SAMC and the SAMO seek to develop the quality of Mathematics teaching and learning by providing learners with interesting and challenging problems at their own grade level and developing 21st century skills.
2. The SAMC and SAMO aims to:
 - popularise Mathematics;
 - promote problem-solving in Mathematics education;
 - promote a perspective that mathematical activities are is more than just calculating;
 - emphasise the importance of reading during mathematical activities;
 - disseminate materials that contribute to meaningful mathematical activities in classrooms;
 - provide a diagnostic tool to enable teachers to identify learners' misconceptions.
3. The SAMC and SAMO are not merely about competing, but rather aim to expose learners to challenging mathematical problems. The questions are designed to develop understanding, applying knowledge in new situations, communication and general mathematical thinking.
4. There are two ways in which to participate:
 - Stronger learners may prefer to participate as individuals (singles).

- Other learners may prefer to work in pairs (doubles).
5. The **2020 South African Mathematics Challenge** will have **three rounds**:
 - First round: 09–13 March 2020
 - Second round: 27 May 2020
 - Final round: 28 July 2020
 6. The **2020 South African Mathematics Olympiad** will have **three rounds**:
 - First round: 12 March 2020 (entry form attached as Annexure A)
 - Second round: 14 May 2020
 - Final round: 23 July 2020
 7. It is recommended that schools give learners the opportunity to engage with previous years' papers, so that they can select and enter those learners who respond successfully to the type of questions and calculations in previous years' papers.
 8. Entries are already open. Schools who wish to enter, should register with the South African Mathematics Foundation (SAMF). The Western Cape Education Department (WCED) will cover the entry fees for learners. **The closing date for entries is 31 January 2020.**
 9. Papers for the first round will be distributed by district/circuit organisers via email and schools need to make copies for their participating learners.
 10. The first round will be written at schools. Teachers may mark the answers or it may be marked during an open class discussion by learners. The memorandum will be provided by the SAMF.
 11. The second round is only for learners who achieved 50% or more in the first round and will be conducted at central venues in the different regions.
 12. Every participant in the SAMC/SAMO will be challenged by at least one problem, which will improve his or her problem-solving skills. Problem-solving skills can be further improved by carefully working through the solutions for these rounds. Alternative and innovative solutions will be presented and it is recommended that the problems used in the papers should be used as resources for classroom discussion.
 13. Creative problem-solving skills are very necessary and marketable in today's technically oriented global marketplace. South Africa needs to be competitive and needs expert problem-solvers. Practice in problem-solving will help to train our future leaders of technological development.
 14. The logistical arrangements for both competitions can be found by visiting <http://www.samf.ac.za/en/sa-mathematics-challenge> for the SAMC and <http://www.samf.ac.za/en/sa-mathematics-olympiad> for the SAMO.

15. The SAMF recognises achievement and awards the following certificates:
 - Gold certificate: All learners scoring more than 80% in the final round
 - Silver certificate: All learners scoring between 60% and 79% in the final round
 - Bronze certificate: All learners scoring between 50% and 60% in the final round.
16. Each region may organise an award ceremony at a local school in the region.
17. For more information and past papers with memoranda, schools can register as a user at www.samf.ac.za. It is essential that learners be provided the opportunity to engage with past papers to develop basic problem-solving skills before entering the Olympiads.
18. Principals are kindly requested to bring this minute to the attention of all Mathematics teachers.

SIGNED: PAD BEETS

DEPUTY DIRECTOR-GENERAL: CURRICULUM AND ASSESSMENT MANAGEMENT

DATE: 2020-01-24

2020 ENTRY FORM

| | | | | | | |
|---------------------------|---|---|---|---|---|----|
| Quintile | 1 | 2 | 3 | 4 | 5 | NA |
| School | | | | | | |
| Postal address | | | | | | |
| Street address | | | | | | |
| Province/Country | | | | | | |
| School's telephone | | | | | | |
| School's email | | | | | | |
| School's Olympiad Manager | | | | | | |
| Cellphone number | | | | | | |
| Email | | | | | | |

Please indicate

- Total number of learners in the school
- Choose 1 of the three options:

| | | |
|---------------|----------------|-------------|
| Public school | Private school | Home school |
|---------------|----------------|-------------|
- Indicate your school's location:

| | | |
|-------|----------|-------|
| Rural | Township | Urban |
|-------|----------|-------|
- Is your school part of the MST Grant project?

| | |
|-----|----|
| Yes | No |
|-----|----|

STATISTICS: FIRST ROUND PARTICIPANTS

Please complete the following required information for reporting purposes. (Names of learners are not required.)

| Grade | Seniors | | | | Juniors | | |
|---------------|---------|----|----|-------|---------|---|-------|
| | 10 | 11 | 12 | TOTAL | 8 | 9 | TOTAL |
| Asian | | | | | | | |
| Black | | | | | | | |
| Coloured | | | | | | | |
| White | | | | | | | |
| TOTALS | | | | | | | |
| Male | | | | | | | |
| Female | | | | | | | |

Note: Combine Gr 7 learners with Gr 8 total

| | | | | | | | |
|-----------------------------|----------------------|-----|-------|--|--|--|--|
| FOR OFFICE USE ONLY | School's code number | | | | | | |
| Payment date | | | | | | | |
| Question papers | Jnr | Snr | Email | | | | |
| Solutions | Jnr | Snr | Email | | | | |
| Answer sheets | Jnr | Snr | Email | | | | |
| Certificates | Instructions | | | | | | |
| 2nd round registration form | Confirmation letter | | | | | | |
| Parcel checked by | | | | | | | |

| PAYMENT DETAILS | | THIS ENTRY FORM SERVES AS A TAX INVOICE | | VAT no: 452 026 3569 | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Please complete the section below: | | | | | |
| Entry Option | No. of learners | Price per learner (incl. 15% VAT) | Total amount | Method of payment | Post certificates |
| ONLINE OPTION South African Schools: i.e. online registration; online payment; downloading question papers & answer sheets; uploading 1st round results Entrants from SADC countries outside SA (online only) Entrants from other countries outside SA (online only) | | @ R20 per learner | | Do your registration & payment online! Pay online via Payfast | N/A |
| | | @ R75 per learner | | | |
| | | @ \$11 per learner | | | |
| South African schools: email option (i.e. we email the papers etc. and you have to make copies) | | @ R25 per learner | | Electronic transfer NB: submit your school's name as reference. SAMF - ABSA Bank - Branch: Hatfield Account No. 4061037913 Branch code: 632005 | N/A |
| South African schools with > 100 entrants | | @ R30 per learner | | paid by Provincial Department if arranged | Yes No |
| South African schools with ≤ 100 entrants | | @ R35 per learner | | | Yes No |
| Quintile 1 & 2 schools with ≤ 100 entrants | | Free of charge | | Free of charge | Yes No |
| MST schools with ≤ 100 entrants | | paid by Provincial Department | | paid by Provincial Department if arranged | Yes No |
| Sponsorship (only ≤ 100 entrants) | | see p.2 for info) | | Submit written request | Yes No |
| TOTAL NO. OF LEARNERS | | TOTAL AMOUNT | | | |

NOTE: Entries without the correct entry fee or without proof of payment will be rejected. No refunds will be given for rejected, late or cancelled entries. It is each teacher's responsibility to ensure that entry forms and payments/proof of payments are submitted on time. Schools from SADC countries must please exchange their currency to South African Rand.

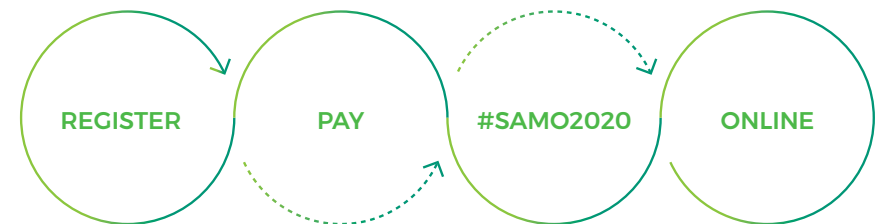


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OLD MUTUAL SOUTH AFRICAN MATHEMATICS OLYMPIAD

FIRST ROUND: 12 MARCH
CLOSING DATE FOR ENTRIES: 31 JANUARY



THE THREE ROUNDS

First round, 12 March

The junior division consists of separate papers for grades 8 and 9 and the senior division of one paper for grades 10 to 12. Each paper consists of 20 multiple-choice questions and learners have one hour to complete the paper and the school can schedule its own time. **Marking:** The teachers at the entrants' schools mark the answers. Each school will be provided with the solutions. This ensures immediate feedback.

Second round, 14 May 14:00 - 16:00

Learners who attain 50% and higher in the first round qualify for the second round. There are separate papers for the juniors and seniors. The grade 8 and 9 learners write the same paper. The learners have two hours to complete 25 questions. Learners who participate in the second round will receive a certificate.

Marking: The answers are marked by SAMF.

Third round, 23 July 09:00 - 13:00

The 100 best senior and 100 best junior learners from the previous round qualify for the third round. There are separate papers for the juniors and seniors. Third round participants will each receive a bronze medal and certificate. The best 10 learners per division will receive their prizes at the annual award function.

WHY SHOULD YOU ENTER

- Mathematics competitions generate a lot of enthusiasm and curiosity for the subject.
- Learners will be exposed to problems that will test and improve their ability to discover, validate and solve problems. In short, they will become better mathematicians.
- The Maths Olympiad is recognised as one of the best vehicles to identify the most talented learners in the country.
- Participation will result in the school providing improved skills and will better prepare their learners for university.
- The type of problems is similar to those used in entry level university testing and will provide especially the grade 12 learners with valuable experience.
- Working through past question papers is one of the best ways to prepare for the Olympiad.
- Past question papers and solutions are available on our website - www.samf.ac.za. Register as a user and log in to gain access to these resources.
- SAMF has a wide variety of publications, use the link: www.samf.ac.za/content/files/Documents/SAMF_Publications_2019.pdf

REGISTRATION DETAILS

CLOSING DATE 31 JANUARY 2020

- The last date to submit your entries is on 31 January 2020.
- You can register and pay online to ensure your entry!
- Absolutely no late entries will be accepted.
- Email your completed entry form and proof of payment (we can only register your school if we receive both documents) to info@samf.ac.za or fax it to +27(0)12 392 9312

ENTRY OPTIONS

(See last page for details)

1. Online option at R20 per learner includes online registration; online payment; downloading final instructions, question papers, answer sheets, solutions & certificates; submit 1st Round results in Excel.
2. Email option at R25 per learner includes final instructions, question papers, answer sheets, solutions & certificates by email and you make necessary copies; submit 1st Round results in Excel.
3. Standard option:
 - South African schools at R30 - R35 per learner includes final instructions, question papers, answer sheets, solutions and certificates. These will be posted as soon as we have received your entry form and proof of payment.
 - Quintile 1, 2 schools can enter up to 100 learners free of charge.
4. Schools outside South Africa:
 - Schools in SADC member countries at R75 per learner. (Only ONLINE option available i.e. no hard copies will be posted.)
 - Schools outside South Africa (not SADC) at \$11 per learner. (Only ONLINE option available i.e. no hard copies will be posted.)

ENTRY SPONSORSHIP

If a learner or Quintile 3 school cannot afford the entry fee, a written request for sponsorship must be sent with the entry form. Not more than 100 sponsored entries per school are allowed.

CONTACT INFORMATION

South African Mathematics Foundation
Tel: +27(0)12 392 9324/16
Email: info@samf.ac.za
Website: www.samf.ac.za

ARE YOU AWARE OF THE SAMF AWARDS YOUR SCHOOL AND LEARNERS COULD BE IN LINE FOR?

AT THE NATIONAL AWARDS FUNCTION 19 SEPTEMBER IN CAPE TOWN:

FOR LEARNERS

- **Senior Overall Winner**
Gold medal, R15 000, iPad
- **Junior Overall Winner**
Gold medal, R7 500, iPad
- **Runners up Seniors**
Silver medal, R5 000
- **Runners up Juniors**
Silver medal, R3 000
- **Best performing female learner**
Best Senior and best Junior female learner (if not in top 10). Trophy, R1 500
- **Best performing South African black learner**
Best Senior and best Junior South African black learner. Trophy, R1 500
- **Best performing learner from outside SA**
Best Senior and best Junior learner from outside SA (if not in top 10). Trophy, R1 500
- **Best performing learner per Quintile**
Trophy, R1 000. 3rd round participation is essential.
- **Best performing MST learner**
Trophy, R1 000.
3rd round participation is essential.

FOR SCHOOLS

- **School with best participation**
Based on the number of 1st round participants compared to the total number of learners in a school
- **New school with best participation**
1st time school, based on the number of 1st round participants compared to the total number of learners in school
- **Top performing school overall**
A score is determined by considering the following number of participants: 2nd round, 3rd round & Top 10
- **Top performing MST school**
A score is determined by considering the following number of participants: 2nd round, 3rd round & Top 10
- **Top performing school per Quintile**
A score is determined by considering the following number of participants: 2nd round, 3rd round & Top 10
- **Top performing school per Province**
A score is determined by considering the following number of participants: 2nd round, 3rd round & Top 10

PROVINCIAL AWARDS

FOR LEARNERS

- **Top 3 learners per province**
Based on 2nd round results. Provincial medal, certificate, cash prize.
- **Best performing learner per Quintile per province**
Based on 2nd round results. Provincial medal, certificate, cash prize.
- **Best performing learner from MST school per province**
Based on 2nd round results. Certificate, cash prize.

FOR SCHOOLS

- **Best performing school per Quintile Certificate**
A score is determined based on 2nd round results
- **Best performing MST school Certificate**
A score is determined based on 2nd round results

PARTICIPATION AWARDS

FOR LEARNERS

- **3rd round participation**
Bronze medal, certificate
- **2nd round participation certificate**
- **1st round participation certificate**

FOR SCHOOLS

- **20-year participation Certificate**
Awarded to a school that participated for 20 years
- **10-year participation Certificate**
Awarded to a school that participated for 10 years

FOR SCHOOLS

- **Schools with substantial participation**
Certificate Based on the number of 1st round participants compared to the total number of learners in a school
Gold: 80% of school's total
Silver: 60% of school's total
Bronze: 50% of school's total
- **New school Certificate**
A school entering for the first time