1 Program Description

1.1 About SMAL

Special Maths Academy Limited was founded in 2019 with the aim of training intelligent young minds to be competitive at the level of the world's toughest maths contest (IMO). At SMAL, we are passionate about developing the next generation of mathematicians that will solve world's most challenging problems.

1.2 Instructors

The team members who are behind the brain work of this camp are highly experienced former mathematical olympians with a combined 18 years experience in participating and winning medals at International Mathematics Olympiad (IMO), Pan African Mathematics Olympiad (PAMO), and NMC Nigerian Maths Olympiad (NIMO). The instructors and respective achievements among others are shown below:

Pius Aje Onah:Graduate of Mathematics from the University of Cambridge and has been actively involved in the Olympiads for over ten years. First Nigerian IMO bronze medalist, one-time silver and one-time gold medalist at PAMO. Two-time deputy team leader at IMO and two-time deputy team leader at PAMO. Team trainer for the Nigerian IMO team for the past 4 years.

Henry Aniobi:Henry Aniobi is a graduate of Mathematics from the University of Waterloo. He has represented Nigeria five times in the IMO winning four bronze medals and three times in the PAMO winning two gold medals (perfect scores) and one silver medal. He is passionate about mathematics but even more passionate about morality and about whether or not technology helps or hinders people from being more virtuous and God-fearing people of faith and prayer.

Mmesomachi Nwachuckwu:1-time special medal recipient for AMC10, and 5-time AMC national champion. 2 time silver medalist at PAMO and 3 time honourable mentionee at IMO. Mmesomachi has been involved extensively in Olympiad training at Graceland International School, while as a student and currently an undergraduate student of Mathematics in People's Friendship University of Russia.

Williams Okechuckwu Okeke: Currently studying Mathematics at the Peoples' Friendship University, Moscow, Russia. During his secondary school days, he represented Nigeria three times in IMO, winning 2 Honourable Mentions Awards. He is also a two-time PAMO Gold Medalist. In 2017, he finished in the top 5% of contestants in the American Mathematics Olympiad (AMC 12) and qualified for the prestigious AIME(American Invitational Mathematics Examination). Aside from Mathematics, Williams also likes engaging in critical thinking, playing video games and watching football matches.

Animoku Abdulwahab: With PhD in Financial Mathematics from Middle East Technical University, Animoku Abdulwahab has *Honorable mention* at PAMO (2008), participation at IMO (Vietnam, 2007), and raked 1st in NMC Nigerian Maths Olympiad (3rd round, 2008). He has actively been a Maths Olympiad trainer since 2018 upon finishing his PhD.

1.3 Who is this for?

This camp is specifically designed for high-performing students who have participated or interested in participating and acing the national olympiads. Our philosophy is that students will develop stronger problem solving abilities through intuitive understand-

ing of theorems and concepts as opposed to memorizing formulas to solve problems through repeated drills. Thus, our trainings are structured to reflect this philosophy.

2 Program Structure

2.1 Categories

The camp program will be in three categories, namely: Junior, Senior and Advanced. After the student has enrolled and made payment, he/she will be required to take a **Placement Test** (which will last for 72hours starting from Friday 17th, April 2020), the cumulative score of this test and the level of the problems solved will determine the category in each subject area the student will be registered. A student is only allowed to enroll for 4 subjects (across the 3 program categories depending on placement score). For example, a student can qualify to enroll for Junior Number theory, Senior Geometry, Advanced Algebra and Senior Combinatorics. Moreover, a student is allowed to have access to all the training materials and video recordings of all the classes of other categories at the end of the camp subject to additional payments of N5000 (making it a total of N15,000 registration fee), made at the beginning of the camp. This student should indicate his/her interest during the registration process and make the payments accordingly.

2.2 Begin-End Date

The camp is set to commence on 20th of April, 2020 and finishes on 3rd May, 2020.

2.3 Payment

The registration fee per student and other participants is N10,000 only. With this fee, the participant would have access to all the course materials and videos of only the courses he/she is enrolled in.

Payment should be made to the bank account shown below:

Account Name: Animoku Abdulwahab

Account Number: Access Bank 0787636825

In order to confirm the registration of the student for the camp, payment receipt (a snapshot of payment from phone or email address) must be sent to the email address below for verification specialmathsacademy@gmail.com. The deadline for making payments and sending receipts is on Thursday 16th, April, 2020 at 23:59:00.

2.4 Syllabus

The syllabus for each of the categories is attached at the end of this document. Each week, the students will have classes in each of the four subject areas, namely: Geometry, Number theory, Algebra and Combinatorics. The topics in each subject area have been selected to fit the difficulty and appropriateness for each of the three categories by our experienced instructors.

2.5 Time Commitment and Lesson Engagements

This is a two-week intensive program.

- A Google classroom will be organized for the camp where all students can interact with the instructors and among themselves on the topics learned in class.
- The training involves an in-class lesson of 3hours daily from Monday to Thursday. Video(s) will be sent to the students to download and watch before every class.
- Upon completion of the video(s), there will be a question and answer session in 1 hour live meeting on zoom for students to ask questions about the materials taught in the video.
- Each category will have 3 subjects according to the time table, making it 3 hour in class sessions in total daily.
- There will be a 24/7 online support on the Google classroom to further help answers students questions.
- After each class, the students will be provided problem set to work on that will prepare them for the 2-day exam in the weekend that follows each of the two weeks. These exams will be administered on Saturday and Sunday.
- Students are to submit all homeworks and exams to the course instructor by taking a clear scan of their works ("cam scanner" from google playstore is adviced). Information on how to reach the instructors for submission of any document will be provided at the beginning of the course.

- The student should purchase a sufficient data package, download zoom program (the program will be provided for you to download) before the camp begins.
- At the end of the program, an electronic Gold, Silver and Bronze, Honorable Mention, and Participation Certificates will be awarded which will be determined by the cumulative scores of all the 2-Day exams written during the camp.

2.6 Contact Information

Reach us at this email address specialmathsacademy@gmail.com, social media pages at Facebook (Special Maths Academy), Twitter (@SpecialMaths).

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