

ROOTS NATIONAL ONLINE CONTEST AND ROOTS 2021 CAMP REPORT

Roots National Online Contest – 31st October, 2021
Roots Camp – 11th to 14th November 2021 (Online)



NATIONAL MATH CONTEST

in association with



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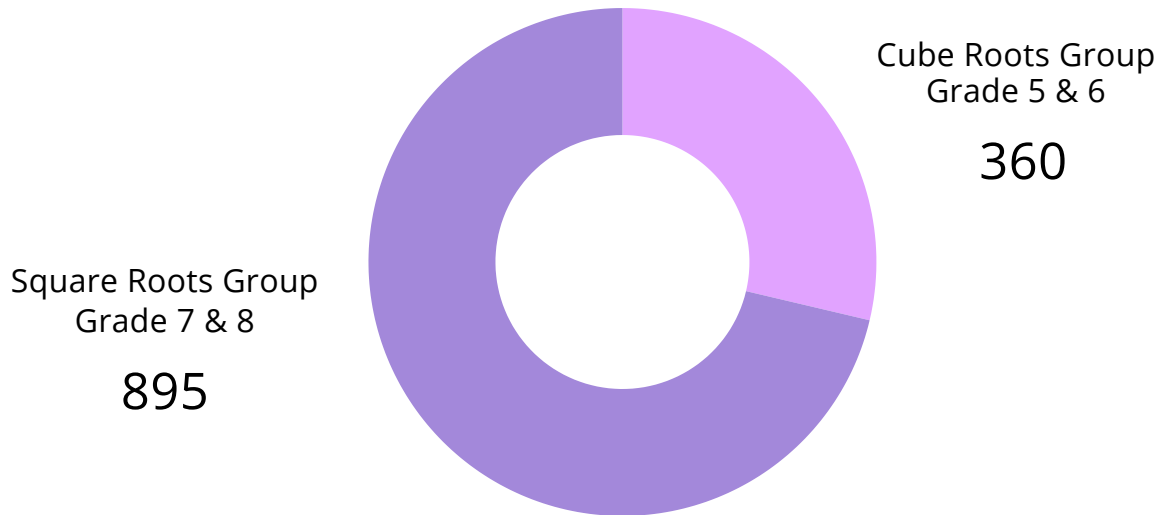


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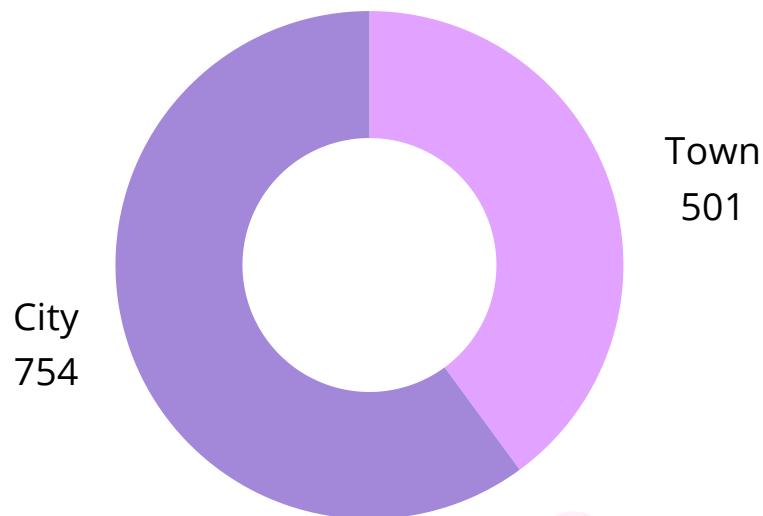
Key Highlights

of Roots National Online Contest and Roots 2021 Camp

Group-wise participation



Town vs City



Detailed Report

of Roots National Online Contest and Roots 2021 Camp

Objective of Roots National Online Contest

To test the ability to strategize and solve mathematical problems that demand logic and reasoning for 5th to 8th-grade students.

Roots Contest Student Participation Details

1255 students across the country participated in the online contest.

Rewards and Recognition

- Medals and merit certificates for the top 3 students in each group.
(Cube Roots and Square Roots)
- Merit certificates to the top 10 per cent of the participants in each group
(Cube Roots and Square Roots)

Top 10 students from each group

CUBE ROOTS GROUP

Student Name	School Name	City/Town	Rank
Adithya Rajesh	PSBB K.K.NAGAR	Chennai	1
Darshini Chakravarty	Crimson Anisha Global School	Pune	1
Aarav Anil Rao	Oakridge International School	Mohali	3
Vijayakrishnan R	PS Senior Secondary School	Chennai	
Arjun Raghav P G	Chirec International School	Hyderabad	
Bairav V	Poorna Learning Center	Bangalore	
Tanish Kulkarni	GMIS	Jakarta	
Arnav Mishra	ST. JOSEPH'S CONVENT HSS	Sambalpur	
V.Akshaya Sri	Pushpalata Vidya Mandir	Tirunelveli	
Archit Gutgutia	CIRS	Coimbatore	

Detailed Report

of Roots National Online Contest and Roots 2021 Camp

SQUARE ROOTS GROUP

Student Name	School Name	City/Town	Rank
Abhinav Khetan	Delhi Public School, Noida	Noida	1
Utkarsh Chakravarty	Crimson Anisha Global School	Pune	2
Manu P	Homeschooled	Bangalore	3
Sanjana Philo Chacko	St. Thomas Residential School	Trivandrum	
Shrikrishna Rao	Kilbil St.Josephs High School	Nashik	
Sidhant Kumar	JNV - Muzzaffarpur	Raxaul	
Raghav Jeyan Prabu	Dr. Kalmadi Shamarao HS	Pune	
Sarvam Vora	Narayana School	Mumbai	
V.G.Surya krishnan	Pushpalata Vidya Mandir	Tirunelveli	
Mohammad Afaan	DAV Gandhinagar	Ranchi	

All the students who secured a place in the top 10 got a scholarship worth INR 10,000 each for Epsilon India 2022 (a camp for gifted students in Mathematics) or for the Mathematics Olympiad Online Training Program (RMO OTP) 2022-23 batch.

Selection for Roots 2021 Camp

The top 50 students from each group, (Cube Roots and Square Roots), were invited to participate in a 4-day Online Camp from 11th to 14th November 2021, where they were exposed to different areas in Mathematics and had the opportunity to interact with top-notch mentors in the field of Mathematics.

Detailed Report

of Roots National Online Contest and Roots 2021 Camp

Pedagogy and program schedule for Roots National Online Contest and Roots 2021 Camp

Roots National Online Contest was held on 31st October 2021. The contest was divided into 2 groups.

- **Cube Roots group: 5th & 6th grade**
- **Square Roots group: 7th & 8th grade**

Cube Roots group had a 1.5 hours span to complete 20 questions. And the Square Roots group had a 2 hour span to complete 30 questions.

Topics covered in the Roots 2021 Camp

The various topics covered during the camp were Geometry, Algorithms, Problem Solving Strategies, Math on Chessboard, Mathematics and Music, Algorithmic Game Theory, Probability Puzzles, Introduction to Financial Mathematics, Unambiguous Codes and other Combinatorial Problems on Strings and The Secure Pattern.

During the informal sessions, participants got a chance to learn Origami: From Paper Rockets to Real Rockets. Raising A Mathematician Training Program (a program for high school students deeply passionate about mathematics) and Epsilon alumni did a wonderful presentation about RAM TP (highly sought out a program for kids aged between age 13 to 15 across the country) & Epsilon, a unique camp for highly gifted young mathematicians in the age group 9 to 13. The participants also got a chance to listen to the Math Olympiad experience from an Olympiad medallist.

Speakers Lineup



Sadagopan Rajesh

DIRECTOR OF ARYABHATTA INSTITUTE OF MATHEMATICAL SCIENCES TOOK THE CAMPERS DEEP INTO PROBLEM SOLVING STRATEGIES.



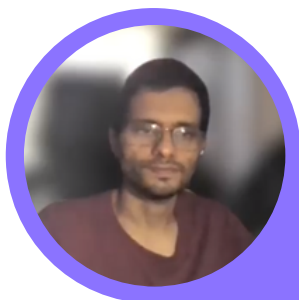
Ashwin Guha

MATH EDUCATOR FROM SEED2SAPLING EDUCATION INTRODUCED A COMPLETELY DIFFERENT WORLD OF 'MATH ON CHESSBOARD' TO OUR PASSIONATE PARTICIPANTS.



Shivkumar

MATH EDUCATOR AT SEED2SAPLING EDUCATION INTRODUCED THEORY OF COMMUNICATION AND HOW WORDS ARE CONVERTED INTO BINARY MATHEMATICS.



Ajay Nerurkar

B.TECH. IN COMPUTER SCIENCE FROM IIT BOMBAY AND A PH.D. (ALSO IN COMPUTER SCIENCE) FROM THE STATE UNIVERSITY OF NEW YORK MADE PARTICIPANTS STRETCH THEIR MINDS TO UNDERSTAND AND SOLVE THE AMAZING PROBABILITY PUZZLES.



Omkar Sambare

PASSIONATE MATH TEACHER WHO TEACHES MATHEMATICS AND STATISTICS DID AN AMAZING SESSION ON 'FUN WITH SHAPES' WITH BARE MINIMUM RESOURCES LIKE A FEW SHEETS OF PAPER AND A PAIR OF SCISSORS.

Speakers Lineup



Bhas Bhamre

DIRECTOR AND TEACHER AT BHAS BHAMRE'S ACADEMY EXPLORED CONCEPTS IN GEOMETRY.



Prof. R Hariharan

FACULTY AT FRANKFURT SCHOOLS OF FINANCE AND MANAGEMENT AND HEAD OF ACADEMIC AFFAIRS, RAM FOUNDATION, TOOK STUDENTS THROUGH BASIC CONCEPTS IN MATHEMATICS LIKE SIMPLE AND COMPOUND INTEREST AND SHOWED HOW IT IS LINKED WITH AREAS IN FINANCE AND ACCOUNTING.



Vinay Nair

RESEARCH SCHOLAR AT CHINMAYA VISHWAVIDYAPEETH AND CO-FOUNDER OF RAM TOOK STUDENTS THROUGH ALGORITHMS AND BINARY NUMBER SYSTEMS USING POETRY.



Aniruddhan Ganesaraman

FINAL YEAR (CLASS OF 2022) MATHS & CS UNDERGRADUATE AT CHENNAI MATHEMATICAL INSTITUTE, TOOK A SESSION ON SECURE PATTERN ON SMART PHONES WHICH WAS ONE OF THE MOST ENGAGING SESSIONS.

RAM Alumni



Aadityan Ganesh

THIRD-YEAR UNDERGRADUATE STUDENT
MAJORING IN MATH AND COMPUTER SCIENCE
AT THE CHENNAI MATHEMATICAL INSTITUTE
EXPLORED ALGORITHMIC GAME THEORY WITH
THE BUNCH OF MATH ENTHUSIASTS.



Hetvi Pethad

17-YEAR-OLD GIRL FROM MUMBAI WHO LOVES
PROBLEM-SOLVING AND LOGIC, DID A SESSION
ON ORIGAMI AND HOW IT USED IN SCIENCE AND
SPACE ROCKETS.

RAM engages with students round the year and helps them explore Math beyond the school curriculum and helps open the gateway into the world of STEM education.

In alignment with its purpose to identify students passionate about mathematics, build a community and provide more opportunities for students to learn Math and allied areas, RAM Foundation believes such contests and programs are essential.

They not only provide an excellent opportunity for the students to engage in non-routine problems but also helps to accelerate their learning curve,



Supporters

of Roots National Online Contest and Roots 2021 Camp

Roots 2021 was supported by

