



Office of the Principal
RANGAPARA COLLEGE, RANGAPARA

ৰঙাপৰা মহাবিদ্যালয়, ৰঙাপৰা

(Affiliated to Gauhati University, UGC Recognised under 2(f) & 12 (B)
P.O - Rangapara, Dist - Sonitpur 784 505

Dr. Ranjan Kalita, M.A. M.M.C. Ph.D.
Principal
&
Research Supervisor, G.U.


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Report on the Webinar

“Some Basic Addition Theorems in Additive Number Theory”

This lecture is a part of Rangapara College Mathematics Lecture Series –2021 (RCMLS-2021) which was held on August 14, 2021. The objective of this series is to motivate the beginners in Mathematics to pursue higher education in Mathematics and to connect them with well-known Mathematicians all over the world. The lecture was held in google meet platform due to the current situation of COVID-19.


Sl. No.	Particular	Details
1	Organizing Department	Mathematics
2	Date	07/08/2021
3	Time	7:00 PM –8.30 PM
4	International/ National/ State	International
5	Platform Used	Google Meet
6	Inaugurator	Dr. Ranendra Mohan Deka, Vice Principal, Rangapara College
7	Coordinator/Convener	Dr. Azizul Hoque, HoD, Department of Mathematics
8	Publicity	Dr. Saswati Purkayastha and Ms. Parishmita Boruah, Department of Mathematics
9	Speaker	Dr. Raj Kumar Mistri, Assistant Professor, Department of Mathematics, IIT Bhilai, Chhattisgarh, India


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10	Objective	The objective of this lecture is to motivate the beginners in Mathematics to pursue higher education in Mathematics and to connect them with well-known Mathematicians all over the world.
11	Target Group	UG/ PG/Research Scholar students
12	Significance of the event	To expose ambitious participants to some Mathematical notions not taught in standard courses.
13	Description of the programme	<p>Dr. Ranendra Mohan Deka, Vice Principal Rangapara College, gave his inaugural speech and also mentioned briefly the importance of such lectures. The programme was hosted by Dr. Azizul Hoque, HoD, Department of Mathematics and he welcomed the participants including the speaker. The speaker is introduced by Dr. Saswati Purkayastha.</p> <p>Prof. Raj Kumar Mistri talk on 'Some Basic Addition Theorems in Additive Number Theory'. Additive number theory is an active area of research. This is a branch of number theory concerning the study of the theory of set addition in which the subsets of integers and their behaviour under the algebraic operation of addition are studied. More generally, additive number theory includes the study of the sum of subsets of abelian groups and commutative semigroups with an operation of addition. The principal objects of study are various sumsets (sum of two or more sets in an additive abelian group SG). In this talk, Dr. Mistri discussed the basic additions theorems regarding the sumsets of sets in the additive group of integers \mathbb{Z} and the additive group \mathbb{Z}_p of residue classes modulo a prime p.</p> <p>The lecture ended with a concluding remark and vote of thanks by Ms. Parishmita Boruah.</p>
14	No. of Participants	55
15	Website Link	https://sites.google.com/view/rcmls/rcmls-2021
16	Attachment	List of Participants, Feedback, pictures
17	Google Meet Link	https://meet.google.com/osc-tahb-qin


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A. List of Participants


Name	Occupation	Affiliation
Dr. K. Shri Akiladevi	Faculty	NGM College
Debakanta Buragohain	Faculty	Assistant Professor
Amar Deep	Ph D student	PDPM IIITDM JABALPUR
Bornali Saikia	Faculty	Sadiya College
Birinchi Kumar Boruah	Ph D student	Dibrugarh University
Suraj Kumar Sah	UG student	Student
Sahana Ahmed	UG student	No
Shiva Shah	PG student	Dibrugarh University
Keshab Borah	PG student	Dibrugarh University
Partha Pratim Borah	PG student	Dibrugarh University
Sujata Goala	Ph D student	Dibrugarh University
Munmi Saikia	Faculty	Patharkandi College, Karimganj
MOHITUSH GOWALA	PG student	DIBRUGARH UNIVERSITY
Jintu Ozah	M.phil	M.phil
Arunjyoti Gogoi	PG student	Dibrugarh University
Parismrita Dutta	PG student	Dibrugarh University
Shiva shah	PG student	Dibrugarh University
Anamika Sarma	Faculty	PDUAM Tulungia, Bongaigaon



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Kabita saha	Faculty	Rangapara college
Mrigen Das	UG student	Pragjyotish College Undergraduate in Guwahati, Assam
Durgesh sah	UG student	Gauhati University
Keshab Borah	PG student	Dibrugarh University
Shiva shah	PG student	Dibrugarh University
Parismrita Dutta	PG student	Dibrugarh University
Arunjyoti Gogoi	PG student	Dibrugarh University
Ankita Kakoty	PG student	Dibrugarh University
Sudarshan GOGOI	Post Graduated	Dibrugarh University
Ananya Medhi	PG student	Department of Mathematics, Dibrugarh University
Ajay Gupta	PG student	MSc in Mathematics
Tirthanath Doley	PG student	Student
ABHIJIT BORA	Research scholar	Dibrugarh University
Dristi Rajbonshi	PG qualified	Ex student of DU
Victoria Priyom Basumatary	PG student	Dibrugarh University
Rituparna Saikia	Completed PG	Dibrugarh University
Naba Kumar Borah	PG student	Student
Indunesi Saikia	PG student	Dibrugarh University
RITU DUTTA	Ph D student	DIBRUGARH UNIVERSITY
AMLANDIP SAIKIA	PG student	Dibrugarh University
NIHARIKA KAKOTY	Ph D student	Dibrugarh University
Birinchi Kumar Boruah	Ph D student	Dibrugarh University
Bornali Saikia	Faculty	Sadiya College
Gopal Sarmah	PG student	Dibrugarh University
Manuranjan Gogoi	Faculty	Madhabdev University
Partha Protim Borah	PG student	Dibrugarh University
MOHITUSH GOWALA	PG student	Dibrugarh University
Bedakhi Baruah	UG student	Student
ALAKANANADA KONWAR	M.Phill	Student



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Tahagata Satapathy	UG student	Institute of mathematics and application, Bhubaneswar under Utakal University , Odisha
Pritam Padhan	UG student	Student
Dr. Tazmin Sultana	Faculty	Assam University, Silchar
Nabanita Dhal	UG student	Institute of mathematics and application, Bhubaneswar Under Utkal university, Odisha
SHREYA MANDAL	UG student	Utkal University
Bhaswati Saha	UG student	Utkal University
Babysweta Dash	UG student	Institut of mathematics and applications , Bhubaneswar
Jatin Sharma	UG student	Utkal University
Richa Sharma	Post-doctoral Fellows	Kerala School of Mathematics Kozhikode, Kerala
Sonom Shome	Ph D student	Research scholar
Victoria Priyom Basumatary	PG student	Dibrugarh University
Ananya Medhi	PG student	Department of Mathematics, Dibrugarh University
Juli hazarika	UG student	Rajiv Gandhi University
Sri Nitupran Senapoti	PG student	Dibrugarh University
Abhishek Nath	PG student	Dibrugarh University
PURNENDU PRAKASH GOGOI	PG student	Dibrugarh university
Tulika Rani Boruah	PG student	Dibrugarh University
Saurav Jyoti Sharma	Faculty	Rangapara College
Satyabrot Kalita	PG student	Dibrugarh University
Indunesi Saikia	PG student	Dibrugarh University
Koushik Dutta	PG student	Dibrugarh University
Imdadul Hussain	UG student	Tezpur University
Dishant Saikia	UG student	Tezpur University

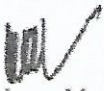

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Feedback

Your name	Your view on the overall organization of the lecture series	Your overall view on the delivery of the speakers	Did you receive adequate knowledge out of the lectures?	Do you think the content of the seminar was useful and interesting?	Would you like to participate in such lecture series in future?	Please provide some comments/suggestions:
Atul Sarmah	Excellent	Excellent	Maybe	Yes	Yes	None
Imdadul Hussain	Good	Good	Yes	Yes	Yes	
Prof. Viet Khac Nguyen	Excellent	Excellent	Yes	Yes	Yes	I will be waiting for similar kind of lecture series
Partha Protim Borah	Good	Good	Yes	Yes	May be	Very helpful
Ms. Srijanee Choudhury	Excellent	Excellent	Yes	Yes	Yes	I will am waiting for future Lecture
Pankaj Gogoi	Good	Good	Yes	Yes	Yes	thank you
Aswani Banraj	Excellent	Excellent	Yes	Yes	Yes	About "Euler"s Pentagonal number: proofs and consequences. Very nice lecture Thank you sir
Smriti Rabha	Good	Good	Yes	Yes	Yes	
Dr. Saswati Purkayastha	Excellent	Excellent	Yes	Yes	Yes	
Manuranjan	Excellent	Excellent	Yes	Yes	Yes	Very nice initiative.


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Gogoi						
Tirthanath Doley	Good	Good	Maybe	Yes	Yes	
Ratan Chowdhury	Excellent	Excellent	Yes	Yes	Yes	Very interesting
Prasanta Boro	Excellent	Excellent	Yes	Yes	Yes	
Richa Sharma	Excellent	Excellent	Yes	Yes	Yes	
Priyanka Baishya	Good	Good	Maybe	Yes	Maybe	Good
Victoria Priyom Basumatary	Excellent	Good	Yes	Yes	Yes	Overall it was a good experience.
Masoom Baruah Borah	Excellent	Excellent	Yes	No	Yes	I like the seminar and I would appreciate to join few more in upcoming events
Kudra Ramesh	Good	Good	Yes	Yes	Yes	It was very useful
Dr. Kiranjyoti Mohan	Excellent	Excellent	Yes	Yes	Yes	Nicely organized
Ajay Gupta	Good	Good	Yes	Yes	Maybe	Good experience for me
Abhijit Dutta	Good	Good	Yes	Yes	Yes	Thank you
Dr. Gitartha Kaushik	Excellent	Excellent	Maybe	Yes	Yes	Kindly share the email of the speaker to our students so that if they are having any queries they can directly contact the speaker.
Dr. Pradip Barman	Excellent	Excellent	Maybe	Yes	Yes	
Lakheswar sahu	Excellent	Excellent	Yes	Yes	Yes	This is very beautiful lecture series, I want to attend more lectures like this. Thank you sir.


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Shiva shah	Good	Good	Yes	Yes	Yes	
Chandini Singh	Good	Good	Yes	Yes	Yes	
DR. BIJOY SANKAR BORUAH	Good	Good	Yes	Yes	Yes	
RAKESH MOULICK	Excellent	Excellent	Yes	Yes	Yes	The talks are interesting and conducted nicely!
Keshab Borah	Excellent	Excellent	Yes	Yes	Yes	
Ananya Medhi	Good	Excellent	Yes	Yes	Yes	The lecture series was helpful as it consisted lectures on different topics ...and so anyone who was interested on a particular topic could attend the lecture on the same...that was overwhelming
Riten Basumatary	Excellent	Excellent	Yes	Yes	Yes	No Comments
Debakanta Buragohain	Good	Good	Yes	Yes	Yes	
Dr. Luxmi Machahari	Good	Good	Yes	Yes	Yes	
Hangma Boro	Excellent	Excellent	Yes	Yes	Yes	Awesome
Saurash Jyoti Madhukulya	Excellent	Excellent	Yes	Yes	Yes	
Bornali Saikia	Good	Good	Maybe	Yes	Yes	
Dr. Naba Kanta Das	Excellent	Excellent	Yes	Yes	Yes	Best
Sujata Goala	Good	Excellent	Yes	Yes	Maybe	It's informative
Subham Roy	Excellent	Excellent	Yes	Yes	Yes	The lecture was really informative

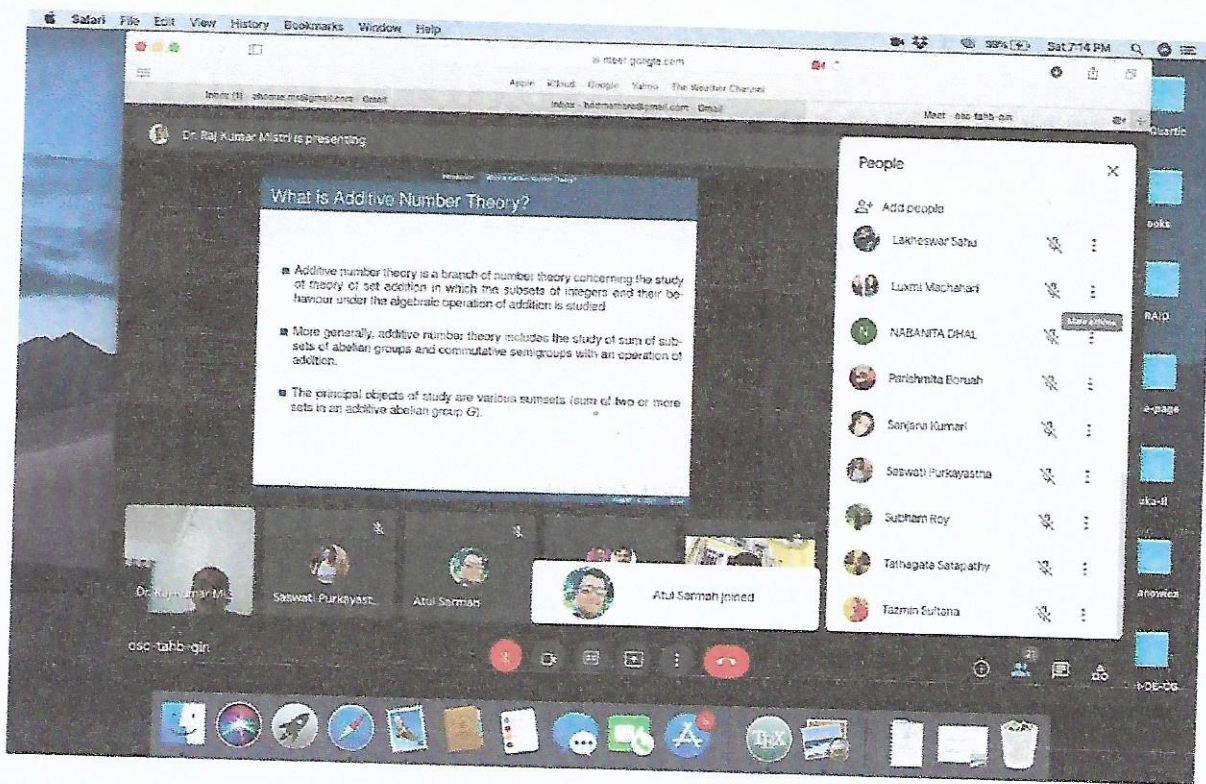

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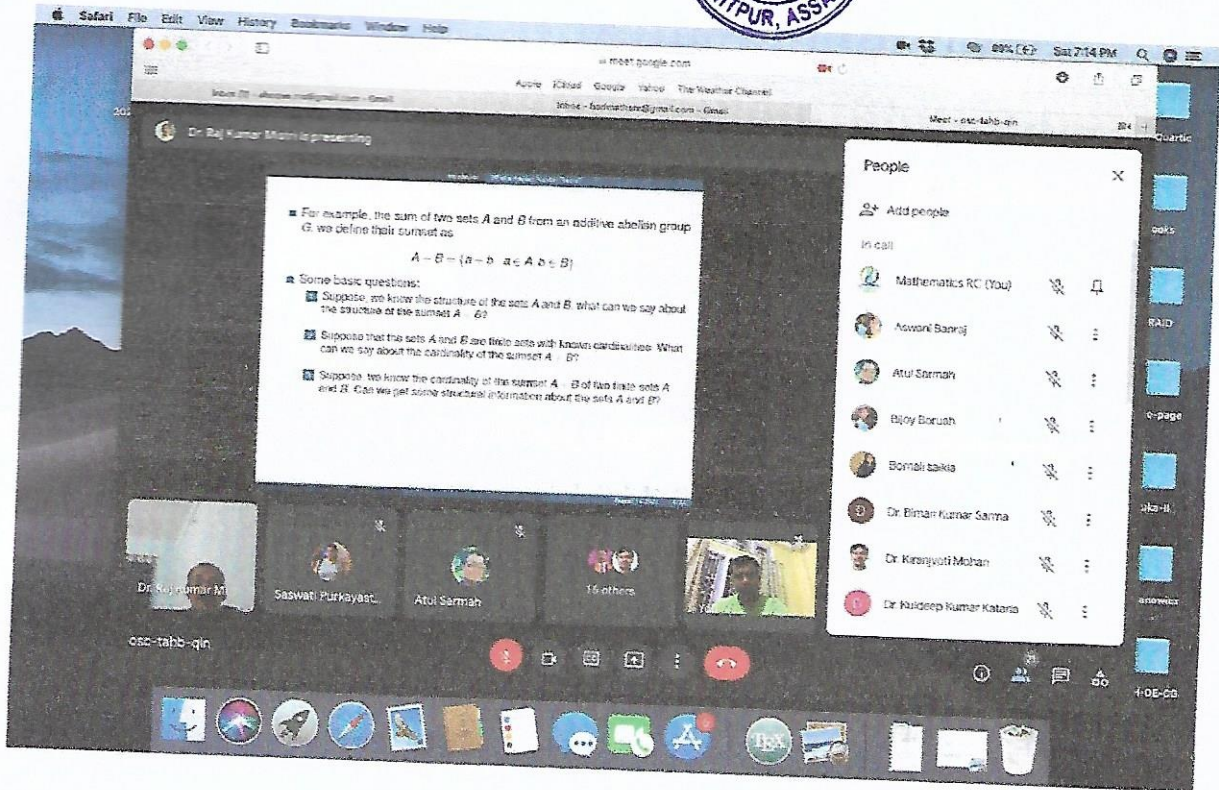
Dr. Biman Kumar Sarma	Excellent	Good	Yes	Yes	Yes	It was nicely organized.
Anjima Narzary	Good	Good	Yes	Yes	Yes	No
Durgesh sah	Good	Good	Yes	Yes	Yes	

Pictures




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For example, the sum of two sets A and B from an additive abelian group G we define their sumset as

$$A + B = \{a + b \mid a \in A, b \in B\}$$

Some basic questions:

- Suppose you know the structure of the sets A and B what can we say about the structure of the sumset $A + B$?
- Suppose that the sets A and B are finite sets with known cardinalities. What can we say about the cardinality of the sumset $A + B$?
- Suppose we know the cardinality of the sumset $A + B$ of two finite sets A and B . Can we get some structural information about the sets A and B ?

- People
- Add people
 - In call
 - Mathematics RC (You)
 - Aswari Baroj
 - Atul Sarmah
 - Bijoy Boruah
 - Bomali Saha
 - Dr. Binan Kumar Sarma
 - Dr. Krunyoti Mahan
 - Dr. Kandeep Kumar Katara


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