



GOVERNMENT OF WEST BENGAL  
OFFICE OF THE PRINCIPAL  
*Maulana Azad College*

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Report of the National level Webinar on “Glimpses of Mathematics in Ancient India”  
held on September 18, 2021.

Organized by **Department of Mathematics**  
**Maulana Azad College, Kolkata & Government General Degree College Kalna-I.**

**Objective:** The Department of Mathematics, Maulana Azad College in collaboration with the Department of Mathematics, Government General Degree College Kalna-I, organized a highly informative and engaging webinar on “Glimpses of Mathematics in Ancient India” on 18 September, 2021. The event aimed to provide valuable insights and knowledge to students, faculty, and participants interested in ancient Indian Mathematics. The webinar was conducted virtually via Google meet platform as well as YouTube streaming.

**Speakers:**

**Dr. Parthasarathi Mukhopadhyay**

Associate Professor

Department of Mathematics

Ramakrishna Mission Residential College.

Topic: “**Glimpses of Mathematics in Ancient India**”.

**No. of participants:** 128 participants from different institutions of West Bengal as well as outside of West Bengal.

**Platform:** Zoom Link for Joining the Webinar from a PC, Mac, iPad, iPhone or Android device:

<https://zoom.us/j/98749574489?pwd=OVpYajNXS2lHRXVwazlDbVRTMitXUT09>

**Passcode:** 180421

**YouTube Link for Joining the Webinar from a PC, Mac, iPad, iPhone or Android device:**

<https://youtu.be/9J9AsBcHhZc>

**Feedback and Evaluation:** Post-webinar feedback indicated a high level of satisfaction among 128 participants. The participants appreciated the relevance of the content, the expertise of the speakers, and the organization of the event.



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Flyer of the Webinar held on 18 September, 2021

**Maulana Azad College, Kolkata**  
&  
**Government General Degree College, Kalna - I**

Jointly Present  
**WEBINAR**  
on

**Glimpses of Mathematics in Ancient India**

18<sup>th</sup> September, 2021 5:00 PM (IST)

**Dr. Parthasarathi Mukhopadhyay**  
Associate Professor, Dept. of Mathematics  
Ramakrishna Mission Residential College (Autn.)  
Narendrapur, Kolkata

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Principal, Maulana Azad College

Principal, Government General Degree College, Kalna - I

Head, Dept. of Mathematics Maulana Azad College

Head, Dept. of Mathematics Government General Degree College, Kalna - I




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Website: <http://maulanaazadcollegekolkata.ac.in>

## GLIMPSES OF Ancient Indian Mathematics



**Dr. Parthasarathi Mukhopadhyay**  
Associate Professor, Dept. of Mathematics  
Ramakrishna Mission Residential College (Autn.),  
Narendrapur, Kolkata, West Bengal

### 9. Computing $\pi$ - The Indian Method




vishkamba diameter ayuta ten thousand

Āryabhata (499 AD) gives an approximation which is correct to four decimal places.

वृत्तधिकं शतमष्टयुगं द्वापदिसाधा सहस्राणाम्।  
अद्वादशविक्रमस्य 'असन्नो' वृत्तपरिमाहः ॥

$$\pi \approx \frac{(100 + 4) \times 8 + 62000}{20000} = \frac{62832}{20000} = 3.1416$$

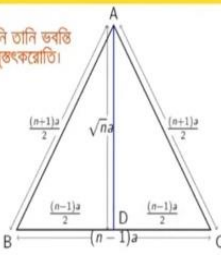
### Palm Leaf Manuscript



• Draw a square  $n$  times a square of side  $a$  (construct  $\sqrt{na}$ )

yāvātpramāṇāni samachaturāśrayekikartum cikṛṣedekoṇāni tāni bhavanti tiryak dvigūṇānyekādḥikāni tṛyaśrībhavati tasyaṣṭatkaroti.

যাবৎপ্রমাণানি সমচতুরাশ্রয়োেকীকর্তুং চিক্রীর্ষেদেকোনানি তানি ভবন্তি তির্যক দ্বিগুণান্যেকত একাধিকানি ত্রয়াশ্রিবতি তস্যোষট্‌করোতি।



Katyayana Sulba-sutra (6.7)

“To combine  $n$  squares (of equal area  $a^2$ ) into one (square), construct a transverse [BC] of length  $(n-1)a$ ; form (an isosceles) triangle [BAC] (with the transverse side [BC] as the base) such that the two sides ([BA] and [AC]) have the combined length  $(n+1)a$ . Then the arrow (i.e., the altitude) [DA] of the triangle [BAC] makes it (i.e., is a side of the desired square).”

### Chandaḥ-saṣṭra : Prosody (Primary Sources)

Date	Title	Author
c. 2 <sup>nd</sup> century BCE	Chandaḥśāstra	Piṅgala
2 <sup>nd</sup> century BCE to 1 <sup>st</sup> century CE	Nāṭyaśāstra	Bharata
c. 550 CE	Bṛhatsaṃhita	Varāhamihira
c. 600 CE	Jānāśrayī Chandovicitīḥ	Janāśraya
c. 7 <sup>th</sup> century CE	Vṛttajātisamuccaya	Virahñika
c. 750 CE	Pāṭiyāyita	Śrīdhara
c. 850 CE	Gaṇitasarasāṅgraha	Mahāvira
before 900 CE	Jayadevacchandaḥ	Jayadeva
c. 950 CE	Mṛtasañjivani	Halāyudha
c. 1000 CE	Chandonuśasanam	Jayakṛti
c. 1100 CE	Vṛttaratnākara	Kedāra
c. 1150 CE	Chandonuśasanam	Hemacandra
1356 CE	Gaṇitakumudī	Nārāyaṇa

Brahmasphutasiddhanta (20<sup>th</sup> Chapter) of Brahmagupta : text is too corrupted to make sense  
Agnipurana, Garudapurana, Naradapurana also have references to Piṅgala's work

Acknowledgement : Jayant Shah

Dr. Parthasarathi Mukhopadhyay delivering his lecture.



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**Feedback of the Webinar held on 18 September 2021**

Timestamp	Username	Full Name (as you want on certificate) (Please mention Mr./ Ms./ Dr./Prof.)	Designation	Name of College/Institution/Organization	How helpful was the webinar for you	Resource person were well prepared	Overall, how would you rate	Would you like to receive
2021/09/18 7:31:48 PM GMT+5:30	sudipta7860sahandp@gmail.com	Mr. SUDIPTA SAHA	Student	IIT Delhi	5	5	5	Yes
2021/09/18 7:31:54 PM GMT+5:30	kumaruttamshit@gmail.com	Mr. Uttam Kumar Shit	Student	RKMVERI	5	5	5	Yes
2021/09/18 7:33:00 PM GMT+5:30	bbiswas.math@gmail.com	Dr. Bijon Biswas	Assistant Professor	Purash Kanpur Haridas Nandi Mahavidyalaya	5	5	5	Yes
2021/09/18 7:33:05 PM GMT+5:30	thakurram06@gmail.com	Dr.	Assistant Professor	Chandernagore College	5	5	5	Yes
2021/09/18 7:33:21 PM GMT+5:30	iamskr000@gmail.com	sajal kanti roy	Student	sree Chaitanya college	5	5	5	Yes
2021/09/18 7:33:25 PM GMT+5:30	arghyagupta95@gmail.com	Mr. ARGHYA GUPTA	Research Scholar	RAMAKRISHNA MISSION VIDYAMANDIRA	5	5	5	Yes
2021/09/18 7:34:44 PM GMT+5:30	dr.arun.maiti@gmail.com	Dr. Arun Kumar Maiti	Associate Professor	Shyampur Siddheswari Mahavidyalaya	5	5	5	Yes
2021/09/18 7:35:30 PM GMT+5:30	sarker.tanmay@gmail.com	Mr. TANMAY SARKER	Assistant Professor	MAHARANI KASISWARI COLLEGE	4	5	5	Yes
2021/09/18 7:36:30 PM GMT+5:30	chaudhuri.rita65@gmail.com	Prof. Rita Chaudhuri	Assistant Professor	New Alipore College	5	5	5	Yes
2021/09/18 7:37:17 PM GMT+5:30	somadey28840@gmail.com	Ms.Soma Dey	Student	Sree Chaitanya College, Habra	4	5	5	Yes
2021/09/18 7:37:43 PM GMT+5:30	ghoshmanorama503@gmail.com	Ms. MANORAMA GHOSH	Student	Sree chaitanya college	5	5	1	Yes
2021/09/18 7:38:00 PM GMT+5:30	ayan5020@gmail.com	Mr. Ayan Kumar Basu	Student	Maulana Azad College	5	5	5	Yes
2021/09/18 7:38:09 PM GMT+5:30	paikdipti82@gmail.com	Ms. Dipti Paik	Student	Sree Chaitanya College,Habra	4	5	5	Yes
2021/09/18 7:39:03 PM GMT+5:30	topiku2013@gmail.com	Mr. SOUMYADWEEP MONDAL	Student	Ramakrishna Mission Vivekananda Centenary Col	4	5	5	Yes
2021/09/18 7:39:43 PM GMT+5:30	srishtisinha@gmail.com	Ms. Srishti Sinha	Student	Sree Sarada Ashrama Balika Bidyalaya	5	5	5	Yes
2021/09/18 7:40:05 PM GMT+5:30	sanchitasarkar428@gmail.com	Ms. Sanchita Sarkar	Student	Maulana Azad College	4	5	4	Yes
2021/09/18 7:40:09 PM GMT+5:30	sohandas2016@gmail.com	MR. SOHAN DAS	Student	ISI KOLKATA	5	5	5	Yes
2021/09/18 7:40:46 PM GMT+5:30	rpornika@gmail.com	Ms. Pornika Roy	Student	Maulana Azad College	5	5	5	Yes
2021/09/18 7:41:17 PM GMT+5:30	mousumichatterjee6911@gmail.com	DR. MOUSUMI CHATTOPADHYAY	Associate Professor	Bethune College	5	5	5	Yes
2021/09/18 7:41:44 PM GMT+5:30	nandadas72@gmail.com	Dr. Nanda Das	Associate Professor	Maulana Azad College	5	5	5	Yes
2021/09/18 7:42:30 PM GMT+5:30	nipaghosh2@gmail.com	Ms. Nipa Ghosh	Student	Sree Chaitanya College , Habra	5	5	5	Yes
2021/09/18 7:42:44 PM GMT+5:30	pujadas262002@gmail.com	Puja Das	Student	South Calcutta Girl's College	5	5	5	Yes
2021/09/18 7:43:48 PM GMT+5:30	ramadas846@gmail.com	Ms.RAMA DAS	Student	D.N.C. College, University of Kalyani	4	5	5	Yes
2021/09/18 7:43:53 PM GMT+5:30	shayanguha1@gmail.com	Shayan Guha	Student	Jadavpur University	5	5	5	Yes
2021/09/18 7:44:11 PM GMT+5:30	paldona572@gmail.com	Ms. Dona Pal	Student	Barasat Government College	5	5	5	Yes
2021/09/18 7:44:37 PM GMT+5:30	subhash.gaded@ssrkt.edu.in	Mr. Subhash Mallinath Gaded	Assistant Professor	Seva Sadan's R K Talreja College of Arts Science a	5	5	5	Yes
2021/09/18 7:45:16 PM GMT+5:30	aritasaha18122001@gmail.com	Mr. ARITRA SAHA	Student	MAULANA AZAD COLLEGE	5	5	5	Yes
2021/09/18 7:45:25 PM GMT+5:30	avirupdas025@gmail.com	Mr. AVIRUP DAS	Student	SREE CHAITANYA COLLEGE HABRA	4	5	5	Yes
2021/09/18 7:45:53 PM GMT+5:30	vyotirmoy@tgc.ac.in	Mr. Jyotirmoy Pramanik	Assistant Professor	Taki Government College	4	5	4	Yes
2021/09/18 7:47:56 PM GMT+5:30	sbhdpa@gmail.com	Dr. Subhadipa Das	Assistant Professor	Harimohan Ghose Collge	4	5	4	Yes
2021/09/18 7:49:08 PM GMT+5:30	nagpuja5@gmail.com	Ms. Puja Nag	Student	Sree Chaitanya College , Habra	5	5	4	Yes
2021/09/18 7:49:10 PM GMT+5:30	dpmehra@gmail.com	Dr. Deepshikha	Assistant Professor	Shyampur Siddheswari Mahavidyalaya	5	5	5	Yes
2021/09/18 7:49:25 PM GMT+5:30	berapoulami24@gmail.com	Miss Poulami Bera	Student	Vidyasagar College For Women	5	5	5	Yes
2021/09/18 7:49:28 PM GMT+5:30	dipalisahoo487@gmail.com	Miss	Student	Bajkul Milani Mahavidyalaya	5	5	5	Yes
2021/09/18 7:50:23 PM GMT+5:30	susmitaghosh0011@gmail.com	Ms. SUSMITA GHOSH.	Student	Sree Chaitanya college, Habra	5	5	5	Yes
2021/09/18 7:51:39 PM GMT+5:30	md.karimullahaque333@gmail.com	Mr. MD KARIMULLA HAQUE	Student	Maulana Azad College	3	3	3	Yes
2021/09/18 7:51:56 PM GMT+5:30	soubhadrakayal@gmail.com	Mr. Soubhadra Kayal	Student	Scottish Church College	5	5	5	Yes
2021/09/18 7:52:09 PM GMT+5:30	deblinadey002@gmail.com	Ms Deblina Dey	Student	Scottish church college	5	5	5	Yes
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2021/09/18 7:53:04 PM GMT+5:30	silver.bittu@gmail.com	Mr.	Others	NA	5	5	5	Yes
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2021/09/18 7:54:28 PM GMT+5:30	ghosh.kailash89@gmail.com	Mr. KAILASHPATI GHOSH	Others	Ulukunda jr high school	5	5	5	Yes
2021/09/18 7:54:39 PM GMT+5:30	dibyendubhuniya018@gmail.com	Mr. Dibyendu Bhuniya	Student	Maulana Azad College	5	5	5	Yes
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2021/09/18 7:55:05 PM GMT+5:30	debikadas2792@gmail.com	Miss Debika Das	Student	vidyasagar college for women	5	2	5	No	
2021/09/18 7:55:26 PM GMT+5:30	pradipta7chakraborty@gmail.com	Mr. Pradipta Chakraborty	Student	Maulana Azad College	5	5	5	Yes	
2021/09/18 7:55:28 PM GMT+5:30	soubhik20189@gmail.com	Mr soubhik dutta	Others	Boso priyanath high school	5	5	5	Yes	
2021/09/18 7:55:56 PM GMT+5:30	halderarnab025@gmail.com	Mr. Arnab Halder	Student	Maulana Azad College	5	5	5	Yes	
2021/09/18 7:56:11 PM GMT+5:30	dibakar.mondal@ggdc.ac.in	Dr. Dibakar Mondal	Assistant Professor	Government General Degree College at Kalna-1	5	5	5	Yes	
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2021/09/18 7:56:33 PM GMT+5:30	uttamrupam2014@gmail.com	Dr. Uttam Das	Associate Professor	Sree Chaitanya College, Habra	5	5	5	Yes	
2021/09/18 7:56:49 PM GMT+5:30	supritisuta2000@gmail.com	Ms. Sutapa Das	Student	Cooch Behar panchanan barma university	5	4	4	Yes	
2021/09/18 7:57:26 PM GMT+5:30	arkaprabhamukherjee2001@gmail.com	Mr. Arkaprabha Mukherjee	Student	Maulana Azad College	5	5	5	Yes	
2021/09/18 7:57:39 PM GMT+5:30	monishaghosh0701@gmail.com	Ms. Monisha Ghosh	Student	Maulana Azad College	5	5	5	Yes	
2021/09/18 7:58:03 PM GMT+5:30	shewliju@gmail.com	SHEWLI SHABNAM	Assistant Professor	Bidhannagar College	5	5	5	Yes	
2021/09/18 7:58:11 PM GMT+5:30	nandisoumili2@gmail.com	SOUMILI NANDI	Student	MAULANA AZAD COLLEGE	5	5	5	Yes	
2021/09/18 7:58:26 PM GMT+5:30	pratyushabasak2001@gmail.com	Ms. Pratyusha Basak	Student	Maulana Azad College	5	5	5	Yes	
2021/09/18 7:58:29 PM GMT+5:30	sasankashekhar.maity@gmail.com	Mr. SASANKA SHEKHAR MAITY	Research Scholar	University of Kalyani	5	5	5	Yes	
2021/09/18 7:58:59 PM GMT+5:30	tanukaroy774@gmail.com	TANUKA ROY	Student	Cooch Behar Panchanan Barma University	5	5	5	Yes	
2021/09/18 7:59:23 PM GMT+5:30	sudiptamandal732102@gmail.com	Sudipta Mandal	Student	Maulana Azad College	5	5	5	Yes	
2021/09/18 7:59:53 PM GMT+5:30	sourasismitra23@gmail.com	Mr. Sourasis Mitra	Student	Maulana Azad College	5	5	4	Yes	
2021/09/18 8:00:09 PM GMT+5:30	srabindrath778@gmail.com	Mr. RABINDRA NATH SARKAR	Student	ACHARYA PRAFULLA CHANDRA COLLEGE UNDER	5	5	5	Yes	
2021/09/18 8:00:09 PM GMT+5:30	tanmay.physics@gmail.com	Dr. Tanmay Das	Assistant Professor	Government General Degree College, Kalna - I	4	5	5	Yes	
2021/09/18 8:00:35 PM GMT+5:30	dbanerjee1729@gmail.com	Mr. Debanjan Banerjee	Student	Maulana Azad College	5	5	5	Yes	
2021/09/18 8:03:40 PM GMT+5:30	indranathmandal43@gmail.com	Mr. INDRA NATH MANDAL	Others	MURARAI GOVERNMENT POLYTECHNIC	5	5	5	Yes	
2021/09/18 8:04:02 PM GMT+5:30	dipanjanaMaity61@gmail.com	Dipanjana Maity	Student	Dipanjana Maity	5	5	5	Yes	
2021/09/18 8:04:35 PM GMT+5:30	avijitduary@gmail.com	Dr. Avijit Duary	Assistant Professor	Halda Institute of Technology	5	5	5	Yes	
2021/09/18 8:06:23 PM GMT+5:30	abujafarmandal786@gmail.com	ABU JAFAR MANDAL	Research Scholar	Aliah University	5	5	4	Yes	
2021/09/18 8:06:31 PM GMT+5:30	bishyay.majumdar@gmail.com	Mr. Bishyay Majumdar	Student	Maulana Azad College	5	5	5	Yes	
2021/09/18 8:07:24 PM GMT+5:30	deba.biswas2010@gmail.com	Dr. Debashis Biswas	Assistant Professor	Calcutta Girls' College	5	5	5	Yes	
2021/09/18 8:08:45 PM GMT+5:30	sorifulislam7778@gmail.com	Mr. SORIFUL ISLAM	Research Scholar	Aliah University	5	5	4	Yes	
2021/09/18 8:11:31 PM GMT+5:30	dassouvik64@gmail.com	Mr. Souvik Das	Student	ACHARYA PRAFULLA CHANDRA COLLEGE	5	5	5	Yes	
2021/09/18 8:12:24 PM GMT+5:30	sougataa12@gmail.com	Ms. Sougata Roy	Student	Maulana Azad College	5	5	4	Yes	
2021/09/18 8:12:33 PM GMT+5:30	srijabose03@gmail.com	Ms. Srija Bose	Student	Acharya Prafulla Chandra College, West Bengal St	5	5	5	Yes	
2021/09/18 8:13:32 PM GMT+5:30	mkausik309@gmail.com	Dr. Kausik Majumder	Assistant Professor	Bidhannagar College	5	5	5	Yes	
2021/09/18 8:15:33 PM GMT+5:30	kuntalpan4578@gmail.com	Mr. Kuntal Pan	Student	Maulana Azad College	5	5	5	Yes	
2021/09/18 8:16:21 PM GMT+5:30	supriya.su401@gmail.com	Prof.	Assistant Professor	Sabang Sajanikanta Mahavidyalaya	5	5	5	Yes	
2021/09/18 8:19:02 PM GMT+5:30	soumi.dhang18@gmail.com	Ms. Soumi Dhang	Student	Vidyasagar College For Women	5	5	5	Yes	
2021/09/18 8:21:36 PM GMT+5:30	swagatodey2001@gmail.com	Mr. Swagato Dey	Student	Maulana Azad College	5	5	5	Yes	
2021/09/18 8:25:27 PM GMT+5:30	rumabhattacharyya1995@gmail.com	Mr. Amitabha Bhattacharyya	Research Scholar	BALLYGUNGE SCIENCE COLLEGE	5	5	5	Yes	
2021/09/18 8:26:09 PM GMT+5:30	rsoumon@gmail.com	SOUMON ROY	Student	Rajabazar science college (University of calcutta)	5	5	5	Yes	
2021/09/18 8:29:58 PM GMT+5:30	shubhamshankardas@gmail.com	SHUBHAM SHANKAR DAS	Student	Maulana Azad College	5	5	5	Yes	
2021/09/18 8:30:38 PM GMT+5:30	srutidas2k20@gmail.com	Miss SRUTI DAS	Student	MAULANA AZAD COLLEGE	5	5	5	Yes	
2021/09/18 8:39:11 PM GMT+5:30	skjisan1341@gmail.com	Mr. Sk Jisan	Student	Maulana Azad college	5	5	4	Yes	
2021/09/18 8:43:12 PM GMT+5:30	swapnadeep.mondal@ggdc.ac.in	Mr. Swapnadeep Mondal	Assistant Professor	Govt. General Degree College at Kalna-I	5	5	5	Yes	
2021/09/18 8:44:09 PM GMT+5:30	das.arunima.school@gmail.com	Ms. Arunima Das	Others	School	5	5	5	Yes	
2021/09/18 8:48:04 PM GMT+5:30	sreehariK94@gmail.com	Sreehari K. G	Research Scholar	Sree Sankaracharya University of Sanskrit, Kalady	5	5	5	Yes	
2021/09/18 8:49:38 PM GMT+5:30	esarafmondal1233@gmail.com	ESARAF ALI MONDAL	Student	ALIAH UNIVERSITY	5	5	5	Yes	
2021/09/18 8:52:04 PM GMT+5:30	sk.asraf.ali@ggdc.ac.in	Dr. SK Asraf Ali	Assistant Professor	Government General Degree College kalna 1	5	5	5	Yes	
2021/09/18 8:52:32 PM GMT+5:30	runuhaldar9@gmail.com	Runu Halder	Student	Maulana Azad College	4	5	5	Yes	
2021/09/18 8:52:37 PM GMT+5:30	mahatsab.mondal@ggdc.ac.in	Dr. Mahatsab Mandal	Assistant Professor	Government General Degree College, Kalna I	5	5	5	Yes	
2021/09/18 9:04:59 PM GMT+5:30	joy.newtown66@gmail.com	Dr. Chiranbij Bandyopadhyay	Assistant Professor	Government General Degree College at Kalna I	5	5	5	Yes	
2021/09/18 9:05:29 PM GMT+5:30	dipankar7001565038@gmail.com	Mr. Dipankar Talukder	Student	National Sanskrit University, Tirupati	5	5	5	Yes	
2021/09/18 9:06:19 PM GMT+5:30	manikkisku85@gmail.com	Manik Kisku	Assistant Professor	Government General Degree College, Kalna-I	5	5	5	Yes	
2021/09/18 9:06:42 PM GMT+5:30	sakilmondal28122002@gmail.com	Sakil Mondal	Student	Maulana Azad College	1	2	1	Yes	
2021/09/18 9:11:56 PM GMT+5:30	sumit.bohar2001@gmail.com	Sumit Ghosh	Student	Kalna college	4	5	3	Yes	
2021/09/18 9:18:15 PM GMT+5:30	chiranjitkhan2000@gmail.com	Mr.	Student	Maulana azad college	4	5	4	Yes	
2021/09/18 9:26:03 PM GMT+5:30	sudipkarmakar2347@gmail.com	Sudip Karmakar	Student	Raidighi College	4	3	4	Yes	
2021/09/18 9:34:45 PM GMT+5:30	mani.shankar.mondal@ggdc.ac.in	Dr. Mani Shankar Mandal	Assistant Professor	Government General Degree College, Kalna-I	5	5	5	Yes	
2021/09/18 9:40:01 PM GMT+5:30	phonimath@gmail.com	Dr. Phonindra Nath Das	Assistant Professor	Ramakrishna Mission Vivekananda Centenary Col	5	5	5	Yes	
2021/09/18 9:50:32 PM GMT+5:30	subratamath@yahoo.in	Dr. Subrata Mukhopadhyay	Assistant Professor	APC Roy Govt. College, Siliguri	5	5	5	Yes	
2021/09/18 9:52:30 PM GMT+5:30	joydipjana@gmail.com	Dr. Joydip Jana	Assistant Professor	Syamaprasad College	5	5	5	Yes	
2021/09/18 9:56:03 PM GMT+5:30	debeshp2004@gmail.com	DEBESH PAUL	Student	SILIGURI INSTITUTE OF TECHNOLOGY	5	5	5	Yes	
2021/09/18 9:56:49 PM GMT+5:30	debeshp2004@gmail.com	DEBESH PAUL	Student	Siliguri Institute of Technology	5	5	5	Yes	
2021/09/18 9:57:19 PM GMT+5:30	pranabmistr58@gmail.com	Mr. Pranab Mistri	Assistant Professor	Government General Degree College Kalna-1	4	5	5	Yes	
2021/09/18 10:00:22 PM GMT+5:30	lcpati@yahoo.co.in	Dr. LOKESH CHANDRA PATI	Associate Professor	J. K. COLLEGE, PURULIA	5	5	5	Yes	
2021/09/18 10:12:46 PM GMT+5:30	bidyut.kumar.das@ggdc.ac.in	Dr. Bidyut Kumar Das	Assistant Professor	Govt. General Degree College, Kalna-I	5	5	5	Yes	
2021/09/18 10:31:36 PM GMT+5:30	saramanayaak1@gmail.com	Ms. Sarana Nayak	Assistant Professor	Acharya Sukumar Sen Mahavidyalaya	4	4	4	Yes	
2021/09/18 10:43:56 PM GMT+5:30	tasniazeba44@gmail.com	Zeba TASNIA	Student	Acharya Prafulla Chandra College of West Bengal	5	5	5	Yes	
2021/09/18 10:54:55 PM GMT+5:30	avijitphysics@gmail.com	Dr. Avijit Sen	Assistant Professor	Syamaprasad College	5	5	5	Yes	
2021/09/18 11:43:52 PM GMT+5:30	koushik-chakraborty@ggdc.ac.in	Koushik Chakraborty	Assistant Professor	Govt. General Degree College, Kalna-I	5	5	5	Yes	
2021/09/19 12:47:14 AM GMT+5:30	kumarishruti763@gmail.com	Ms.	Student	B. R. A. B. U, Muzaaffarpur	4	3	4	Yes	
2021/09/19 12:49:49 AM GMT+5:30	smriti29.11.1995@gmail.com	Ms. Smriti	Student	B. R. A. B. U, Muzaaffarpur	4	4	4	Yes	
2021/09/19 1:47:00 AM GMT+5:30	eduraki.2020@gmail.com	RAKHI BHATTACHARYA	Assistant Professor	Government General Degree College, Kalna-I	5	5	5	Yes	
2021/09/19 7:20:18 AM GMT+5:30	anirban19@iserb.ac.in	ANIRBAN MAJUMDAR	Research Scholar	Indian Institute of Science, Education & Research	5	5	5	Yes	
2021/09/19 9:08:40 AM GMT+5:30	teacher8117@gmail.com	Mr. RADDEPPA	Research Scholar	Department of Studies and Research in History ar	5	5	5	Yes	



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Sample Certificate of the Webinar held on 18 September, 2021

**Maulana Azad College, Kolkata**  
&  
**Government General Degree College, Kalna - I**

Jointly Present  
**WEBINAR**  
on  
**Glimpses of Mathematics in Ancient India**

18<sup>th</sup> September, 2021

**Participant Certificate**

This is to certify that Dr. Nanda Das  
of Maulana Azad College  
has actively participated in the webinar on "Glimpses of Mathematics in Ancient India"  
on 18<sup>th</sup> September 2021.

**Dr. Subhasis Dutta**  
Principal  
Maulana Azad College

**(Prof.) Dr. Krishnendu Dutta**  
Principal  
GGDC - I