Ganit Manthan

Ganit Manthan is a year-long course for students who are deeply passionate about mathematics. The goal of the program is to enable students to develop their Mathematical Thinking, Computational Thinking, and Creativity. The program will enable students to explore, collaborate, develop skills like critical thinking, problem posing, problem-solving, generalisation, and similar <u>long-term goals</u> of Mathematics Education. Unlike in most Math classes where the concepts are taught first followed by problem-solving, in Ganit Manthan, students are exposed to mathematical problems that involve exploration and in the process of exploration, they learn various Mathematical concepts.

Goals of Ganit Manthan

Topics

and Pedagogy

- 1. To develop deep thinking in students who have a high potential to perform in mathematics.
- 2. To inculcate mathematical and computational thinking to tackle problems in and beyond Mathematics.
- 3. To broaden logic, reasoning and precise communication (both written and oral).
- 4. To mentor and nurture bright students.



Sessions in Ganit Manthan are highly interactive. The students not only get an opportunity to interact with the faculty but they also get to interact with their peers, collaborate, understand each other's strengths and thereby being a complement to one another rather than just compete. The existing motivation to do mathematics is fuelled by exciting problems based on topics like Number Theory, Combinatorics, Logic, Sequences, Puzzles, Algebra, Geometry, Proofs, Game Theory, and much more. However, learning concepts in a topic is not an end in itself in Ganit Manthan. The ultimate goals of doing all the math in Ganit Manthan is to build thinking processes, logic, reasoning, arguing skills, strategies to attack problems, patience and most of all, high perseverance.

Mode of the session

Sessions are conducted on a convenient online platform like Zoom, 4 times a month for 90 minutes. Challenging problems are given to students on which they work during the week and discuss it with their peers who might be interested to explore it further.





Minimum 8 and maximum 15 students in a batch.

Students are divided into batches based on what they already know. A particular batch will have a homogeneous crowd based on their current ability to tackle problems in Mathematics. Thus, it is likely to have students of different age groups in a batch.

Is it the right course for my kid?

If your child finds school math too easy, scores almost full in school and competition math loves finding patterns and different ways to solve problems, loves logic, reasoning and puzzles, then Ganit Manthan can be a good course for them. However, if your child is not highly motivated to explore, finds mathematics challenging/boring, then Ganit Manthan might not be the best course for him/her.

What after Ganit Manthan?

While in Ganit Manthan, they not only get access to the sessions but also to various other programs related to math and allied areas. Through various such opportunities they prepare themselves and get into prestigious math camps, programs, courses, for advance learning. Below are some of the courses/camps that some of the past Ganit Manthan students have gotten selected to.

- 1. Math Path <u>www.mathpath.org</u>
- 2. PACT www.algorithmicthinking.org
- 3. PROMYS <u>www.promys.org</u>
- 4. Ross Program
- 5. STEMS <u>www.tessellate.cmi.ac.in</u>
- 6. And many selection-based Math camps in India

Students of Ganit Manthan also write articles in Mathematics Magazines and journals



Students of Ganit Manthan also love to share ideas. Watch links below to see talks delivered by Ganit Manthan students





Quiz and qualify for the year-long program. Here's the process to apply.

Step 1

Fill out the Google form <u>https://tinyurl.com/gm2122form</u> if you are interested in Ganit Manthan.

Step 2

Take the Quiz on a link which will find the above form. The student can submit their responses in 2-3 days. Admissions will be on a rolling basis (i.e., the best applications that come in first have a better chance of selection)

Step 3

Students need to preserve the rough work that they use for the Quiz. If requested, they need to submit it.

Step 4

Save the email address contact@vicharvatika.org so that our email will not go into your spam folder. If selected, you will be intimated by email/whatsapp.

Fees & Payment schedule

Fees:

- * Indian residents: INR 4720 per month
- * International students: INR 7080 per month

Limited need-based scholarships available

Payment schedule:

Fees to be paid as follows -

(a) April

- (b) June August
- (c) September November
- (d) December March

For any queries, you can reach us at contact@vicharvatika.org





Testimonials from parents & students

Ganit Manthan sessions are one of a kind, where the focus is on enabling mathematical thinking abilities rather than just teaching concepts. Every student is given an opportunity to speak and think and learn. There is a wide variety of problems being discussed and a lot of collaborative learning happening among the kids. I am absolutely happy to see the journey of inquiry and learning that Vinay Nair is taking the kids through - I mean not only my child but what I observe of all the other kids in the group too. Vinay is one of the most inspiring teachers that I have met.

~ GV (parent)

Ganit Manthan was one of the best things that happened to my son. Brainstorming over mathematical problems is the core, but the love, guidance and discussions with children having similar interest just takes the cake. As a mother, I am not just interested in academic development but also the social aspect. How was I to know that teachers like Vinay Nair and Hariharan are Godsent who take care of not just Math but so much more in ways that's beyond my understanding. They make sure to develop and broaden the knowledge base as well as think out of the box with lots of love, patience and passion. ~ SJ (parent)



Testimonials from parents & students

I am very happy as a parent with the way Ganit Manthan has been going. This is exactly what I was looking for my 10-year old who is passionate about Mathematics. Your patience is commendable and the way you manage kids is very good.

~ SK (parent)

As a parent of a child who is extremely passionate about Mathematics, I am very happy with the year long program run by Vinay Nair. My child's passion for Mathematics is fueled and the program has helped establish good work habits which is a problem with a lot of gifted kids. The program teaches the children to persevere through tough problems and collaborate with peers keeping the learning alive beyond the classroom. I can see my child flourish emotionally as well through the process of finding and following his passion. Highly recommend the course for children who love math and are looking for teachers and a peer group to match their passion.

Testimonials from parents & students

I have always felt like I am learning something new every single class, and even if I am not, I am taught in such a way that makes me leave the class satisfied, and with more knowledge which will always remain in my mind. ~ SB (student)

We learn a lot of new concepts in depth which has not been introduced in school curriculum yet. We discuss and debate a lot in the class on various claims that we come up with and how to reason it out. ~ SA (student)





Faculty profile

Vinay Nair

Vinay Nair is the Founder of Vichar Vatika, School of Vedic Maths, co-founder of Raising A Mathematician Foundation and Director of Epsilon India. Through these organisations he works towards identifying students who have the potential to perform in mathematics and nurtures them through various programs. He has worked with Indian and international students. He has been part of various committees formed by the NCERT, PSA to the Govt of India, curriculum development of Bharatiya Shiksha board, and more.

Vinay received All India Rank #8 (in Mathematics) Teaching Professionals' Olympiad 2018 organised by CENTA. He is a good mathematics communicator and takes mathematics to people of all ages. He works with students as young as 8 all the way to UG students and teachers. Vinay has the art of curating problems that require deep exploration thereby invoking the mathematician in everyone.

He is an author of two books, an online course on Vedic Mathematics and writes regularly in Mathematics magazines like At Right Angles by Azim Premji Foundation. He has curated various modules on inter-disciplinary ways of learning mathematics, history of Indian mathematics and mathematics in games & puzzles. Periodically, he comes up with innovative programs like the 'Ramanujan Yatra', an outbound experiential learning program where students get to learn and understand life and works of great mathematicians and the people who made them great. His goal is to kindle the spark of mathematics in every child so that they appreciate the beauty of the abstract world of mathematics that they can create at their finger tips and revel in it.

Videos of talks by Vinay Nair



