

# Ganit Manthan

Ganit Manthan is a year-long course for students who are deeply passionate about mathematics. The program will enable students to explore, collaborate, develop skills like mathematical thinking, computational thinking, critical thinking, problem posing, problem-solving, generalisation, and similar <u>long-term goals</u> of Mathematics Education. Unlike in usual 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. The course focuses on <u>nurturing bright minds</u> in mathematics.





# **Goals**of Ganit Manthan

- 1. Deep thinking in students who have a high potential to perform
- 2. Inculcate mathematical and computational thinking to tackle problems in and beyond Mathematics
- 3. Broaden logic, reasoning and precise communication (written and oral)

# **Topics** and Pedagogy

Number Theory, Combinatorics, Algorithms, Algebra, Geometry, Logic, Proofs, Puzzles, Game Theory, and more. The focus is on collaborative learning, explorative learning and guided discovery.

## Mode of the session

Sessions are conducted on a convenient online platform like Zoom, 4 times a month for 90 to 120 minutes.

## **Batch** size

About 15 students 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 self-motivated to explore, finds mathematics extremely difficult/boring, then Ganit Manthan might not be the best course for them. Ganit Kreeda might be a better suited course for them.

## What after Ganit Manthan?

While in Ganit Manthan, they get to apply for various selection-based 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. Epsilon India <u>www.epsilonindia.org</u>
- 2. Episteme <u>www.pravaha.in/episteme</u>
- 3. Math Path <u>www.mathpath.org</u>
- 4. PACT www.algorithmicthinking.org
- 5. PROMYS www.promys.org
- 6. Ross Program <u>www.rossprogram.org</u>
- 7. STEMS www.tessellate.cmi.ac.in

## VÎCHAR VATIKA

Students of Ganit Manthan also write articles in Mathematics Magazines and journals and have topped in contests like AMC, AIME, Bebras Computational Olympiad, ROOTS, INMO and Informatics Olympiad.



Read
Swasti, Siddharth, Davin

Read
Read
Anushka Tonapi

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





















### Special achievements of students:

Ganit Manthan students have received prestigious awards like <u>The Spirit of Ramanujan Fellowship</u>, <u>World Science Scholars</u> program and selected for international contests like <u>International Science</u> and <u>Education Fair (ISEF)</u>.







## Application

**§ selection process** 

Ganit Manthan is a selection-based program where the student has to take a Quiz and qualify for the year-long program. Here's the process to apply.

| Step 1 | Fill out the Google form <a href="https://tinyurl.com/gm2425form">https://tinyurl.com/gm2425form</a>   |
|--------|--|
| 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 | Wait for the response from our end.  |

## Fees

**§ Payment schedule** 

#### Fees:

Indian residents: INR 5000/month + GST 18%\*

International students INR 9440/month

Limited **need-based** scholarships are available. Do not hesitate to reach out if you need one.

#### Payment schedule:

Fees to be paid as follows -

- (a) April June (holidays from Apr mid to
- May end) at the time of enrolment
- (b) July September by June 15th
- (c) October December by September 15th
- (d) January March *by December 15th*For any queries, 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. Brain-storming 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)

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)

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)

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. 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.

~ GV (parent)



# Faculty profile



### Vinay Nair

Vinay Nair is the founder of Vichar Vatika, co-founder of Raising A Mathematician Foundation, director of Maths Circle at RAM and Epsilon India. He has been working in the space of Math education since 2009 and specialises in building mathematical and computational thinking skills in students. In the last 16 years, he has taught over 30,000 students and addressed another 30,000 students & teachers. He mentors and nurtures precocious students throughout their academic journey. He is one of the few experts in India working in the domain of gifted education in Mathematics. Vinay has been part of various committees such as the NCERT committee for identifying causes of Math phobia, committee to create a Math Museum - project by PSA to the Govt of India, curriculum development of Bharatiya Shiksha board, & more.

Vinay is a Math communicator and has spoken on platforms like TEDx thrice. He is also the recipient of All India Rank #8 (in Mathematics) Teaching Professionals' Olympiad 2018 organised by CENTA. He works with high potential students from grade 4 to 10 (and in some exceptional cases with pre-primary students as well) and teachers. He is also focused on bridging the gender gap in STEM education.

He is a regular blogger and an author of two books, an online course and writes in Mathematics magazines like At Right Angles by Azim Premji Foundation. He has headed over 50 national level residential camps on Mathematics. 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.



### Videos of talks by Vinay Nair













