St Xavier's College

Mapusa, Goa

4 QUALITY EDUCATION

Department of Mathematics

In Commemoration of

NATIONAL MATHEMATICS DAY

Presents

PARADΩX

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Fr. Antonio Salema

Officiating Principal
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Head of the Department
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23 rd February 2026

ORGANIZING COMMITTEE

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Advisory Committee

Dr. Jervin Zen Lobo   Mr. Gajanan Parab
Mr. Rahul Naik   Mr. Swapnil Belekar

PARADΩX

Overview

PARADΩX is a mathematics-based competitive event designed to challenge and expand participants' logical thinking, problem-solving abilities and creative reasoning skills. Through this event, we aim to encourage students to move beyond their routine classroom syllabus and engage with mathematics in a deeper, more hands on and enjoyable manner.

Through a series of brain teasing puzzles, quests and challenges, participants will explore intriguing mathematical ideas that test intuition, reasoning and analytical precision. Our goal is to inspire curiosity, intellectual discussion and innovative approaches to problem-solving, highlighting the beauty and depth of mathematics as a discipline.

General Rules

- Every participating college must send only ONE TEAM comprising of minimum 8 members and a maximum of 15 members.

- All teams must report at 8.30 am sharp at St Xavier's College campus on 23rd February 2026.

- Registration link: `https://forms.gle/XUEvJaTEMbzjpsYK9`

- Deadline for registration is 8th February 2026 before 11:59 pm with an entry fee of Rs 1000/- (NO REFUND).

- After registration (including payment) each team shall be assigned a code name which must be strictly adhered to.

- All team members must have completed atleast one semester Mathematics at the UG level.

- Each member must participate in at least 1 event and atmost 3 events.

- Use of vulgar, indecent or inappropriate language, found arguing with organizers or judges or any sort of misconduct shall result in disqualification of that participant from the event.

- THE DECISION OF JUDGES IS FINAL AND BINDING ESPECIALLY IN MATTERS OF DISPUTE.

- Each participant is responsible for their own belongings and the organizers shall not be held responsible for any loss.

- Refreshments and lunch will be provided.

Registration Fee to be paid in favor of
The Principal, St. Xavier's College
Central Bank of India, St. Xavier's College Branch, Mapusa-Goa
Account Number:3555241284
IFSC Code: CBIN0284049

Event List

Submission Events
Fractal Lens

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Off-Stage Events

GeoGebr-Art
Trajectory
Co-ordinate Quest
The Gordian Knot

On-Stage Events

Prime Olympiad
MET-GAMMA
Absurdus!
Mr & Ms Paradox

Fractal Lens

(Photography)

Mathematics hides around us in plain sight. We can observe geometrical shapes, fractals, spirals, symmetry and other beautiful patterns in nature. From the structure of a honey comb to the great ancient as well as modern architectural wonders, math finds its way at the center of all. In this competition showcase your photography skills in capturing the mathematical marvels in nature around.

Number of Participants: 1 per Team.
Theme: Math found in nature.
Rules:

- Only 1 submission shall be accepted.

- Use of Mobile Phones only is permitted.

- Use of Photo morphing, manipulation, or any edits shall result in disqualification.

- Submissions must not contain any credentials or identifying marks (such as name watermarks). Photos with such marks will be disqualified.

- The use of filters, including HDR, Black and White, or Sepia, is strictly prohibited.

- Submissions must be in JPEG format only. Mode of submission shall be informed later.

Judging Criteria:

- Creativity and style.

- Originality.

- Relevance to the Theme.

6 7
(Meme Making)

Use your wits, weird sense of humor and creativity to generate a mathematical based stand up comedy which hilariously describes the subject or its related learning experiences.

Number of Participants: 1 per Team.
Theme: The meme should be based on mathematics and/or its applied/allied areas.
Rules:

- Usage of AI is strictly forbidden.

- Submissions must be in JPEG format only. Mode of submission shall be informed after registration.

- 1 submission per team, after submitting teams are allowed to collaborate with the organizing committees' Instagram.

- The meme must be clean and appropriate for all age groups. Offensive, political or religious content is strictly prohibited and will lead to disqualification.

- Further details of submission shall be provided after registration.

Judging Criteria:

- Creativity and Originality.

- Humor.

- Relevance to Theme.

- 60% judging on quality of work, 40% on Instagram Reach (based on likes).

GeoGebr-Art

(Digital Art)

Gorgeous graphs, stunning shapes, mandala art and many more mathematical diagrams can be easily created using the software, GeoGebra. It is a helpful graphing calculator to visualize and analyze data in an efficient manner. Flaunt your plotting and graphing skills to design an elegant piece of artwork using this software.

Number of Participants: 1 per Team.

Rules:

- Contestants will be given an hour to create mathematical art using the software.

- PCs with the offline software will be available.

- All work must be original. No pre made templates or external tools to be used.

- Internet usage is not allowed.

Judging Criteria:

- Creativity.

- Originality, uniqueness and innovative design.

Trajectory

(Sport Event)

Numbers fill the screens on fields where athletes play, statistics tells the stories of victory and heartbreak. Angles and motor mechanics govern the modern sportsmen. Sports is not alien to mathematicians as it might seem, the renowned Pythagoras participated and won many events in the Olympic games.

In this event, a team of 2 participants must endure 3 rounds . One testing speed and agility while the others involve secret sports (to be revealed on location) that uniquely test your shooting, aiming and throwing abilities.............

Number of Participants: 2 per Team (1 male + 1 female).
Rules:

- The participants must carry their sports attire.

- In depth rules will be explained at the venue.

- The judges decisions are final and binding.

- Time taken and number of attempts (corresponding to the rounds) will be taken into consideration.

Co-ordinate Quest

(Treasure Hunt)

Mathematics relies on logical thinking. Every problem or proof requires step by step deduction, reasoning, and sometimes creative approaches to crack the code. Solving one part reveals the next and eventually leads to the final result. Apply those same skills to the test with our thrilling treasure hunt. Race against time to find your clues and claim your prize!

Number of Participants: 2 per Team.

Rules:

- Clues: Maths based riddles, logic and word problems.

- Specific rules and other details for the rounds will be notified to the participants on day of event.

- No form of malpractice or interference such as copying, destroying or stealing clues, etc will be tolerated and will lead to direct disqualification of the team.

- Use of mobile phones, smart watches or other electronic devices is prohibited by the team during the event and will lead to disqualification if not adhered to.

- Destruction of college property and misbehavior is strictly forbidden.

- Note: For this event, only first place will be awarded.

Rounds:

- Elimination: (written) 15 riddles, time is considered incase of a tie. Top 5 teams qualify

- Campus hidden clues, total 6 clues per team (maths and general riddles)

The Gordian Knot

(Puzzles)

Puzzles are essentially mini-problems that build the mental muscles needed for complex mathematical challenges, strengthening creativity and lateral thinking. Both math and puzzles require logical thinking, deductive reasoning and pattern recognition. Rubiks cubes, sudokus and a secret puzzle await. Put your problem solving skills to the test and race to the finish line.

Number of Participants: 2 per Team.
Rules:

- Both participants have to solve the Rubiks cube and sudoku.

- Participants are allowed to bring their own cubes which will be vetted at the venue.

- Incase of a tie, the teams will have to solve the Rubiks cube again.

- The team with the fastest overall time wins.

Prime Olympiad

(Quiz)

Mathematics is a subject with infinite lore, rich history and with an ever increasing area of applications. This competition aims to test your memory and thinking prowess. Get ready to rack your brains for answers to the questions which await. Expect to be quizzed on numericals, logic and reasoning, probability, famous mathematicians and other basic concepts.

Number of Participants: 2 per Team.
Rules:

- There will be a written elimination round, following which the top four teams will move on to the final round.

- Questions will be based on general mathematical knowledge, it's history and it's concepts covered up till Std XII.

- The Quiz Master's decision will be final and binding.

- In case of coping , cheating or any malpractices, the team shall be disqualified.

- Use of mobile phones/smart watches or other such devices during the quiz is strictly prohibited and will lead to disqualification if not adhered to.

MET-GAMMA

(Fashion Show)

Mathematics has it's hand in the working of fashion. Aesthetics are determined by ratios and symmetry, spirals and fractals adorn garments and even the weave and knitting of cloth is related to math. Showcase your outfits that represent beauty, power and the logic of mathematics through a mythological lens.

Number of Participants: 5 participants + 1 narrator (if required).

Theme: A Math based Fashion Show inspired by the gods of Olympus. A blend of symmetry, beauty and style.

Rules:

- Duration of the performance shall not exceed 5 minutes, if done so this shall result in negative marking.

- Use of props are permitted, arrangement of these props shall be done by the team itself.

- Use of water, fire, explosives, cigars and alcohol bottles is not allowed. The use of glitter, confetti, or similar materials is also prohibited.

- All costumes must be modest. No revealing outfits for women or men are permitted.

- Any act, music, or walk containing indecent or vulgar content will result in immediate disqualification.

- Background music to be submitted via pen drive on the day of the event at 8.30a.m.

Judging Criteria:

- Relevance to Theme.

- Creativity and Innovation.

- Choreography and Music Synchronization.

- Presentation and Styling.

Absurdus!
(Stand-up Comedy)

Three statisticians go out hunting together. After a while they spot a deer. The first statistician takes aim and shoots. The bullet sails over the deers head and misses it by an inch. The second takes aim and shoots. This bullet whizzes below its chin and again misses by an inch. The third, after observing this through his binoculars shouts out loud, WE GOT HIM!!. Seize the stage and entertain the audience with a series of chuckle inducing jokes.

Number of Participants: 1 per Team.
Theme: Humor related to maths. (based on maths concepts and/or related classroom experiences).
Rules:

- Duration: Max 5 mins

- Participants can speak in English/Hindi/Konkani or a combination of them.

- Decorum to be maintained at all times. No foul, indecent or vulgar material is permitted. Derogatory comments towards any political party, religion or organization will lead to disqualification.

Judging criteria:

- Humor and Wit

- Performance and Acting

- Confidence and Fluency

- Relevance to the theme

- Crowd Engagement

Mr & Ms Paradox

(Pageant)

Mathematics has an interesting connection to the way we perceive beauty. The Golden Ratio Φ is believed to represent inherent beauty and harmony of bodily features. The true specimens of mankind not only possess elegant features and physicality, but a sharp mind and God given abilities to go along with it. Prove your mettle and intelligence in our trials that seek out the best.

Rounds:

- Trivia:
  Quiz based on general knowledge, current affairs, sports, basic math and cognitive ability

- Fitness:
  A series of physical and mental challenges await, in which participants have to show their physical and mental strength, stamina and endurance.

- On stage:
  In this particular round, participants will have 4 sections:

  – Ramp walk: (Maximum 1 min)

  – Introduction : Use your personal achievement and team name to introduce yourself. (Maximum 1 min)

  – Talent: Show us what you do best. In this section, participants will be given 4 minutes to wow us. Any props required by the participants must be arranged by the participants themselves.

  – Interview: Tell us your opinion on a topic, answer some hard hitting questions and blow our minds with your response.

Note:

- At the end of Round 2, after evaluating the scores, only the top 4 male and female contestants will move ahead to Round 3.

- Contestants must dress modestly. No revealing outfits for women or men are permitted.

- The audio tracks for ramp walk and talent need to be submitted via pen drive at 8.30 am during the registration of the team.

- Exceeding the time limit will lead to negative marking.

Scoring System

To maintain the mathematical focus of the fest, the events are divided into two sets, *A* and *B*. Events that involve mathematical concepts, logical thinking, problem-solving, and creatively bringing mathematics into real life are given higher weightage.

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A = \left\{ \begin{array}{c} \text{GeoGebr-Art} \\ \text{Prime Olympiad} \\ \text{The Gordian Knot} \\ \text{MET-GAMMA} \\ \text{Mr \& Ms Paradox} \end{array} \right\} \quad B = \left\{ \begin{array}{c} \text{Fractal Lens} \\ 67 \\ \text{Trajectory} \\ \text{Co-ordinate Quest} \\ \text{Absurdus!} \end{array} \right\}
$$

1st Place - 50 points
2nd Place - 40 points
3rd Place - 30 points

1st Place - 40 points
2nd Place - 30 points

Note: 10 points will be awarded for participation to every team (apart from the winning teams), for every event. These points will be considered for the final scores.

Joker: Each team will be given an opportunity to place a Joker on only one of certain events for doubling their points. This must be done at the venue during registration following which no changes will be permitted. (The Joker **cannot** be placed on the submission events as well as Trajectory).

Schedule of Events

Duration	Onstage		Offstage
8.30-9.00	Registration		
9.00-9.30	Opening Ceremony		
9.30-10.00	Absurdus!	Prime	Co-ordinate Quest
10.00-10.30		Olympiad	Mr & Ms Paradox
10.30-11.00	Prime	Mr & Ms	Co-ordinate
11.00-11.30	Olympiad	Paradox	Quest
11.30-12.00	Mr & Ms		
12.00-12.30	Paradox	GeoGebr-Art	Trajectory
12.30-1.00			
1.00-1.30	Lunch Break		
1.30-2.30	MET-	The Gordian Knot	
2.30-3.00	GAMMA		
3.00-4.00	Valedictory Session		