



SpaceCon

# GRAPH MADNESS

Analyze and transform graphs

# RULEBOOK



Graph Madness is a high-energy mathematics competition where participants use the Desmos Graphing Calculator to solve problems, recreate images, and model real-world scenarios. Hosted by NAKSHATRA at Netaji Subhas University of Technology (NSUT), the event blends creativity, logic, and precision-based coordinate geometry into an engaging competitive experience.

## MISSION TIMELINE & VENUE

### Team Composition

Online Round (Exactitude)

Submission

Registration Deadline

Main Event (Offline Rounds)

Venue

### Date / Details

24th January 2026 – 5th February

4th February

7th February

Netaji Subhas University of  
Technology (NSUT), New Delhi

## ELIGIBILITY & TEAM FORMATION

### 2.1 Team Size

- Teams must consist of 2–3 members only
- Solo participation is not allowed
- A participant may be part of only one team

### 2.2 Eligibility Requirements

- Open to all eligible students as specified by NAKSHATRA, NSUT
- All participants must carry a valid college ID and produce it upon request



## 2.3 Registration Rules

- Teams must register before the official deadline
- Once registered, team composition cannot be changed, except with prior approval from the organizing committee
- Only registered teams may participate in any round of the event

# EVENT STAGES

## 1. Online Round: Exactitude

**Format:** The round consists of two precision-based questions:

- **Question 1: Reference Image Recreation**

Teams recreate a given image using mathematical graphs. Evaluation is based on shape, proportion, alignment, and relative positioning.

- **Question 2: Emoji Scene Recreation**

Teams recreate a scene described using emojis. Each emoji must be manually drawn using equations.

### Constraints:

No text, symbols, pasted emojis, or image imports allowed

### Rules:

- All drawings must be created only using equations and coordinate geometry
- Image tracing, importing, copying, or AI assistance is strictly prohibited
- Late submissions will not be evaluated
- Any rule violation results in immediate disqualification



## 2. Round 1: Think in Graphs (Offline)

**Format:** Modeling 5 real-life scenarios using coordinate geometry

**Focus:**

Accuracy in scaling, plotting, and labeling

**Requirement:**

- Solutions must be graph-based
- Formula-only answers without graphical representation will receive zero marks

## 3. Round 2: Stellar Market (Offline)

**Role:** Teams act as Human Quant Analysts

**Objective:**

Identify the trend line (growth trajectory) that minimizes financial risk (error) using visual intuition and manual parameters

**Structure:**

- The round consists of three phases: IPO Phase, Trading Phase, and Market Closing
- Teams must minimize the defined loss function using the provided data

**Constraint:**

Use of AI tools or automated regression methods is strictly banned



## 4. Round 3: Marble Slides Challenge (Offline)

**Format:** A Desmos-based puzzle challenge

**Task:**

Write non-linear equations (parabolas, circles, exponentials, etc.) to guide marbles and collect stars

**Constraint:**

Use of linear equations (straight lines) is strictly prohibited

## TECHNICAL & CONDUCT RULES

### 6.1 Graphing Rules

- All solutions must be graph-based
- Proper axes, scale, plotting, and clarity are mandatory
- Formula-only or calculation-only answers may receive zero marks

### 6.2 Device Usage & Responsibility

- Teams must ensure laptops are fully functional and charged
- No extra time will be granted for technical failures
- Unauthorized electronic devices, AI tools, scripts, or automated solvers are prohibited
- Any use of AI or external computation leads to immediate disqualification

### 6.3 Calculator Policy

Use of calculators is prohibited, unless explicitly stated otherwise for a specific round

### 6.4 Final Authority

Decisions made by the judges and organizing committee are final and binding



## SCORING & EVALUATION

- Each round carries a predefined maximum score
- Evaluation is based on:
  - Accuracy and correctness
  - Graphical clarity and representation
  - Compliance with all event rules
- In case of ties, predefined tie-breaker criteria announced by the judges will be applied

## PRIZES & CERTIFICATES

- Participation Certificates: Provided to all qualifying teams
- Awards: Special prizes for winners and top performers
- Details: Prize information will be announced separately

We extend our best wishes to all the participants of SpaceCon 2026.