



MOON BATTLE – MATH QUEST

Math Quest is a structured multi-round mathematics competition open to:

- All students currently enrolled in Moonpreneur Math classes
- External students who register for the competition

The contest evaluates foundational understanding, logical reasoning, speed, mental agility, conceptual clarity, and presentation skills through progressive elimination rounds.

1. CATEGORIES

The competition is divided into four grade-combined categories:

Category B1

Grades 2 & 3

(July 18)

Category B2

Grades 4 & 5

(July 19)

Category B3

Grades 6 & 7

(July 19)

Category B4

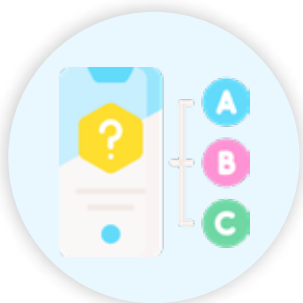
Grades 8 & 9

(July 18)

Each category follows the same four-round structure.

2. COMPETITION ROUNDS OVERVIEW

The competition consists of four rounds:



Online Quiz Round (Qualifier)



Gamified Speed Round



Math Viva (Live Problem Solving)



Grand Finale Buzzer Round

One winner per category will be declared after the final round.

ROUND 1 – ONLINE QUIZ ROUND (SCREENING ROUND)

Purpose:

To evaluate foundational understanding, logical thinking, accuracy, and speed.

Format:

- 25 questions
- Duration: 30 minutes
- Conducted online
- Fully proctored (camera + screen recording mandatory)

Time Structure:

- First 20 questions – approximately 1 minute per question
- Last 5 questions – higher difficulty, require deeper thinking

Marking Scheme (Total = 150 Marks)

Section A – Questions 1–20

- +4 marks for each correct answer
- -1 mark for each incorrect answer
- Maximum: 80 marks

Section B – Questions 21–23

- +10 marks for each correct answer
- -2 mark for each incorrect answer
- Maximum: 30 marks

Section A – Questions 1–20

- +20 marks for each correct answer
- -5 mark for each incorrect answer
- Maximum: 40 marks

Total Maximum Score: 80 + 30 + 40 = 150 Marks

- Advancement:
- Top-performing students from each category qualify for Round 2.

ROUND 2 – GAMIFIED SPEED ROUND

Purpose:

To test mental agility, speed, focus, accuracy, and performance under pressure.

Format:

- Conducted using Moonpreneur in-house competitive math games
- Category-specific game selection
- Students compete simultaneously
- Level-based progression system
- Live leaderboard tracking scores in real time

Evaluation Parameters:



Speed of solving



Accuracy



Strategic progression



Focus under timed conditions

Advancement:

Top scorers move to Round 3.

ROUND 3 – MATH VIVA (LIVE PROBLEM-SOLVING ROUND)

Purpose:

To evaluate conceptual clarity, reasoning ability, and communication skills.

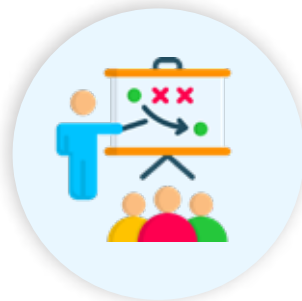
Format:

- One-on-one assessment with a panel teacher
- Approx. 5 minutes per student
- Questions selected from the defined competition curriculum
- Student must solve and explain their approach live

Assessment Criteria:



Concept clarity



Logical structure of
solution



Accuracy



Confidence and
articulation



Depth of
understanding

Advancement:

Top scorers move to Round 3.

ROUND 4 – GRAND FINALE BUZZER ROUND (WITH EXPLANATION)

Purpose:

To determine the ultimate winner through speed, accuracy, and presentation quality.

Format:

- Live buzzer-based competition
- Question passes to next student if first response is incorrect
- Each question carries 15 marks total

Scoring Structure

per Question:

- 5 marks – Correct answer
- 10 marks – Explanation & presentation quality

Explanation Evaluation:

- 60% weightage – Audience voting
- 40% weightage – Judges' scoring

Audience and judges evaluate:

- Clarity of explanation
- Logical flow
- Confidence
- Conceptual correctness

If the first student answers incorrectly:

- Question passes to the next fastest buzzer
- That student can attempt the question for full scoring opportunity

The final winner in each category is determined based on cumulative buzzer round performance.

Curriculum

The following curriculum outlines the topics on which the Moon Battle competition will be conducted. This curriculum integrates USA Common Core standards, Math Kangaroo concepts, and Math Olympiad / AMC-style reasoning

Grades 2 & 3

Number Sense & Operations

- Place value up to 1000
- Addition and subtraction within 100
- Multiplication and division within 100
- Basic and multi-step word problems
- Fractions on the number line



Measurement & Data

- Time and money
- Area and perimeter
- Data interpretation



Geometry & Spatial Thinking

- Shapes and partitions
- Visual and spatial reasoning



Patterns & Logical Thinking

- Number patterns and sequences
- Logical reasoning puzzles
- Visual logic challenges



Grades 2 & 3

Number & Operations

- Multi-digit multiplication
- Division with remainders
- Equivalent fractions
- Operations with fractions
- Decimals and place value
- Ratios and percentages



Number Theory

- Factors and multiples
- Prime numbers
- Divisibility rules
- Introductory number theory concepts



Geometry & Measurement

- Angle measurement
- Volume
- Coordinate plane basics



Problem Solving & Competitive Mathematics

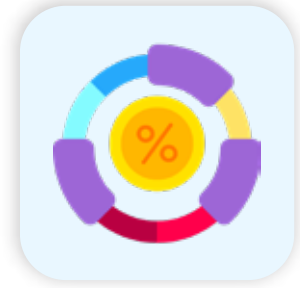
- Counting strategies
- Logic-based problem solving
- Olympiad-style multi-step reasoning



Grades 6 & 7

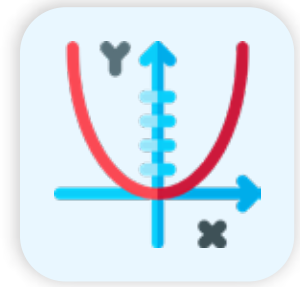
Ratios & Rational Numbers

- Ratios and unit rates
- Integers
- Rational numbers



Algebra

- Algebraic expressions
- Linear equations
- Linear inequalities
- Proportional relationships
- Exponents and roots



Geometry

- Area
- Surface area
- Volume
- Advanced geometry concepts
- Transformations



Number Theory & Combinatorics

- LCM and GCD
- Introductory combinatorics



Probability & Logical Reasoning

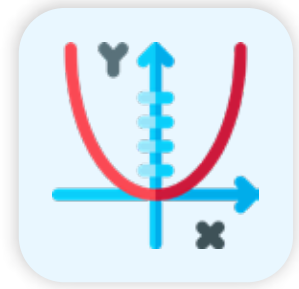
- Basic probability
- Patterns and sequences
- Logical deduction



Grades 8 & 9

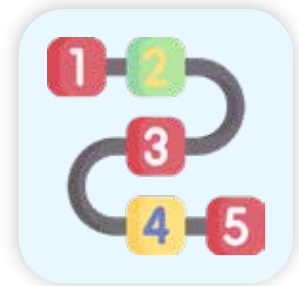
Algebra & Functions

- Linear functions
- Systems of equations
- Polynomials
- Algebraic identities
- Quadratic equations
- Functions and graphs



Sequences

- Arithmetic progressions
- Geometric progressions



Geometry

- Pythagorean theorem
- Similarity
- Coordinate geometry
- Advanced geometry concepts



Advanced Competitive Mathematics

- Complex counting techniques
- Advanced combinatorics
- Analytical reasoning
- Multi-step Olympiad-style reasoning



Parent & Participant Acceptance Agreement

By registering for Moon Battle, the student and parent/guardian agree to comply with the following rules and regulations:

1. TECHNICAL REQUIREMENTS

- The competition will be fully recorded (camera + screen recording)
- Camera must remain ON at all times.
- Only one device may be used.
- All unnecessary tabs must be closed before the test begins.
- AI tools, search engines, messaging apps, calculators (unless explicitly allowed), or any external help tools are strictly prohibited.
- Stable internet connection is the participant's responsibility.



2. ACADEMIC INTEGRITY

- No assistance from parents, siblings, tutors, or peers.
- No use of books, notes, formula sheets, or external devices.
- The student must work independently at all times.



3. ENVIRONMENT GUIDELINES

- Student must sit in a quiet, well-lit room.
- Face must be clearly visible on camera.
- No other person should be present in the room.
- Student must not leave the camera frame during the round.



4. ADVANCEMENT & MANDATORY ATTENDANCE REQUIREMENT

- To move ahead in the competition (Viva Round and Grand Finale), and to be eligible to receive results or awards, both the student and at least one parent/guardian must be physically present in the auditorium during official announcements and live contest proceedings.
- Absence during required announcements or final rounds may result in forfeiture of advancement, title eligibility, or award declaration.

5. DISQUALIFICATION POLICY

- A participant may be disqualified if:
- Camera is turned off intentionally.
- Screen sharing is disabled.
- Suspicious tabs or cheating tools are detected.
- Background prompting or assistance is observed.
- Any misconduct or unfair practice is identified.

The organizing committee reserves the right to review recordings and take necessary action if violations are discovered.

Consolidated Grade-wise Math Competition Syllabus (Grades 2–9)

This syllabus combines USA Common Core expectations with Math Kangaroo and Math Olympiad / AMC-style concepts, maintaining strong school alignment while building competitive problem-solving skills.

Grade 2

- Place value up to 1000 (Common Core)
- Addition and subtraction within 100 (Common Core)
- Basic word problems
- Shapes and partitions
- Time and money
- Patterns and sequences
- Logical reasoning puzzles
- Visual and spatial thinking



Grade 3

- Multiplication and division within 100 (Common Core)
- Fractions on the number line
- Area and perimeter
- Data interpretation
- Number patterns and sequences
- Multi-step word problems
- Logical reasoning and visual puzzles



Grade 4

- Multi-digit multiplication
- Division with remainders
- Equivalent fractions and decimals
- Factors and multiples
- Angle measurement
- Introductory number theory
- Logic-based problem solving



Grade 5

- Operations with fractions
- Decimals and place value
- Ratios and percentages
- Volume and coordinate plane basics
- Prime numbers and divisibility
- Counting strategies and Olympiad-style problems



Grade 6

- Ratios and unit rates
- Integers and rational numbers
- Algebraic expressions and equations
- Area, surface area, and volume
- Basic probability
- Patterns, sequences, and logical deduction



Grade 7

- Proportional relationships
- Linear equations and inequalities
- Exponents and roots
- Advanced geometry and transformations
- Number theory (LCM, GCD)
- Combinatorics basics



Grade 8

- Linear functions
- Systems of equations
- Polynomials and identities
- Pythagorean theorem and similarity
- Coordinate geometry
- Advanced Olympiad-style reasoning



Grade 9

- Quadratic equations
- Functions and graphs
- Sequences and progressions
- Systems of equations
- Advanced geometry
- Complex counting and analytical reasoning

