



Lahore Grammar School
Johar Town Senior Boys Campus

INFINITESIMA

STUDY GUIDE



12 · 13 · 14
SEPTEMBER

Introduction:

Serving as a battlefield for aspiring mathematicians, Infinitesima pushes delegates to their limits through challenges designed to test speed, accuracy, strategy, and teamwork. Across four intense rounds, teams will face puzzles, time constraints, and strategic twists — ensuring only the most versatile problem-solvers rise to the top.

Round 1:

Delegate Count: 1–2

Duration: 1 hour 15 minutes

To start off the category, teams will face a high-stakes battle of numbers, strategy, and pressure. In this round, delegates will navigate through 20 math problems while avoiding a series of unpredictable bombs that threaten to erase their progress or deduct points. At first, teams will be given some time to solve the questions freely, but after that, in random intervals, a ticking bomb targets a random question. If it detonates before being solved or defused, the question is gone. Some bombs are lethal, backfiring with negative points if ignored. Each team gets limited defusal tokens, making the choice of when and how to use them is critical during this round.

Note: This is an accumulation round.

Round 2:

Delegate Count: 2

Duration: 1 hour 30 minutes

Two participants from each team will alternately work on a shared set of problems, with only one solving at a time. After a fixed interval, the paper must be passed to their partner, but no talking is allowed. Teammates can only leave written notes during swaps, and strategic division of questions is essential. With each swap cycle, the time per turn reduces, building urgency and testing how well teams adapt under pressure.

Note: This is an elimination round.

Round 3:

Delegate Count: 1–2

Duration: 1 hour 15 minutes

Qualifying teams are divided into three groups, each competing in timed calculus-based challenges of increasing difficulty: Easy, Medium, Hard. Points and time limits rise with difficulty, demanding both speed and technical skill. Only the 6 best performing teams will advance to the Final Round, making both accuracy and time management vital.

Note: This is an elimination where only the top six teams qualify.

Round 4:

Delegate Count: 2–3

Duration: 3 hours

The ultimate test of mathematical ability, featuring complex, thought-provoking problems that demand deep understanding, logical reasoning, and creative problem-solving. Teams will tackle 6 progressively difficult questions over 3 hours, working to solve problems from a variety of mathematical domains such as algebra, geometry, combinatorics, and number theory. Points will be awarded not only for correct answers but also for clear, well-structured solutions.

Note: Winner and Runners Up will be decided by culmination of points. Final decisions as well as potential changes are in the hands of category heads.