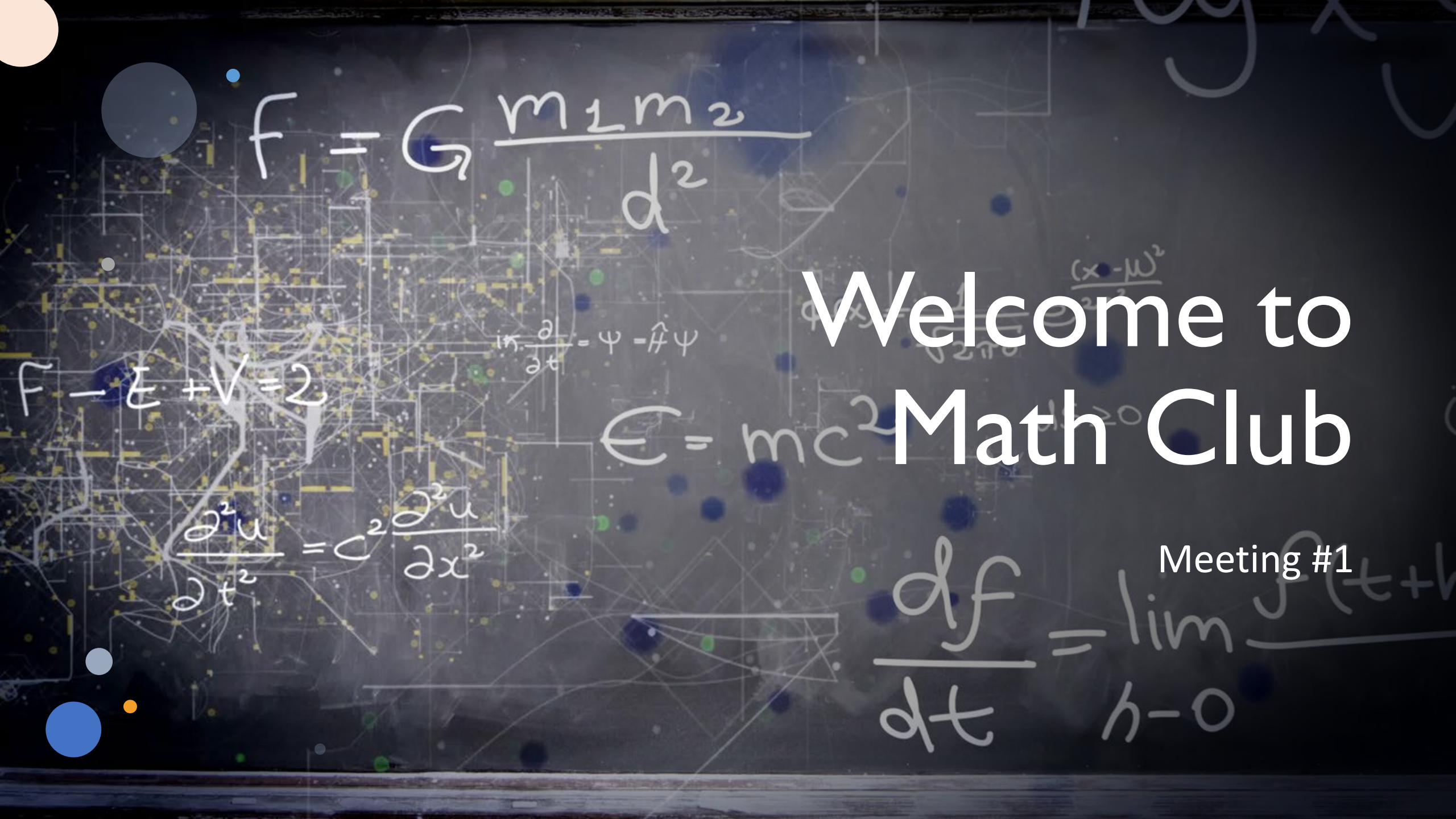

Welcome to Math Club

Meeting #1

Contacts:

- Discord: https://discord.gg/d8aRxWtM
- Email: tssmathclubofficial@gmail.com
- Instagram: tssmathclub

Roles:

- President:
  - Kristopher Zhao
- Executives:
  - Adam Chen
  - Anton Lee
  - Tay Lee

Schedule (Tentative)

- Geometry – 2 Months
  - 2-D Geometry
    - Synthetic
      - Parallel lines
      - Triangles
      - Quadrilaterals
      - Circles
      - Simple Planar Transformation
    - Analytic
      - Sine and Cosine Laws
      - Menelaus's and Ceva's theorem
      - Cartesian Plane
        - Conic Sections
      - Vectors
      - Barycentric coordinates
  - 3-D geometry
    - Synthetic
    - Analytic
- Algebra – 1 Month
  - Equations
  - Inequalities
  - Trigonometry
  - Exp and Log
- Sequences – 1 Month
  - Arithmetic Sequences
  - Geometric Sequences
  - Algebraic-Geometric Sequences
  - Recursive Sequences
  - Other Sequences
  - Infinite Sequences
- Combinatorics – 1 Month
  - Counting
  - Permutation
  - Combination
  - Probability
  - Bayes' theorem
  - Stars and Bars
  - Binomial Theorem
  - Pascal Triangle

Schedule (Cont'd)

- Number Theory and Group Theory – 2 Months
  - Number Theory
    - Division with Remainder
    - Divisibility
    - GCD/LCM
    - Unique factorization
    - Modules
    - Fermat Little Theorem
    - Euler's Totient Function and Euler's Theorem
    - Wilson's Theorem
  - Group Theory
    - Definition
    - Subgroup
    - Abelian Group
      - Prove Wilson's Theorem
    - Cyclic Groups (Zn, Zp)
    - Cosets and Lagrange Theorem
      - Prove Fermat Little Theorem and Euler's Theorem

Recent Contests:

Contest Name	Organization	Contest Date	Description
COMC	CMS	Oct. 27	Students who score exceptionally well on this competition are selected to participate in the Canadian Mathematical Olympiad.
CIMC	University of Waterloo	Nov. 16	Most of the CIMC problems are based on the mathematical curriculum up to and including Grade 10. Most of the CSMC problems are based on the mathematical curriculum up to and including the final year of secondary school. This contest can be useful for university application and Waterloo gives scholarship based on the Euclid, CSMC, and CCC.
CSMC		Nov. 16	
AMC 10/12 A	MAA	Nov. 10	The American Mathematics Competitions are the first of a series of competitions in secondary school mathematics that determine the United States team for the International Mathematical Olympiad.
AMC 10/12 B		Nov. 16	

Kahoot Time!