Discrete Mathematics

<u>Discrete Mathematics</u> is the branch of Mathematics that deals with questions involving finite or countably infinite sets.

Topics:

- Fundamentals: logic, set theory, natural and integer numbers, divisibility and prime numbers, functions.
- Combinatorics: principles of counting, combinatorial identities, generating functions and recurrence relations, main families of numbers.
- Graphs: paths, trees, planarity, colorings.
- Algebraic methods: groups, rings, fields, coding theory.