

## Number theory

1. Properties of divisibility relation defined on the set of integers.
2. Euclidean algorithm.
3. Prime numbers.
4. Congruences and their properties.
5. Quadratic reciprocity law.
6. Basic Diophantine equations.
7. Continued fractions and their properties.
8. Approximating real numbers by rational numbers.
9. Arithmetic functions - algebraic properties and analytic properties.

## English language bibliography:

1. L. K. Hua, Introduction to Number Theory, Springer, 1982
2. H. Davenport, The Higher Arithmetic, Cambridge University Press, 2008