

MATH 310 : Number Theory

This course examines properties of the integers including prime numbers and their distribution, the Euclidean algorithm, linear and nonlinear Diophantine equations, congruences, multiplicative functions, primitive roots, continued fractions and quadratic residues. Applications of number theory to such areas as computer science, cryptography, and networks are studied. Software technology such as Mathematica, Matlab, or Maple is also used to examine number theoretic properties and their applications.

Credits 3.0