

Mathematics 126- Number Theory
Fall 2007

Instructor: Professor R. Alperin

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Office hours: 12:45-1:30 MW, 2:45-4:00 M or by appointment

Text: *Elementary Number Theory and Applications* by T. Koshy, Harcourt Press, latest edition

The main goal of this class is to introduce the students to basic mathematical concepts used in number theory and techniques for their mathematical proof.

Your final grade is based on a 300 point total on tests and 50 points on homework and presentations. Homework assignments will be made each class. You must keep a neatly prepared looseleaf notebook of homework and be prepared to make presentations in class.

- Chapter 1-2 Fundamentals and Divisibility: (2)
- Chapter 3 GCD and Euclidean Algorithm: (3)
- Chapter 4-5 Linear Equations, Congruences and Applications: (2)
 - MIDTERM : 150 points**
- Chapter 6 Systems of equations-Chinese Remainder Theorem (2)
- Chapter 7-8 Milestones and Multiplicative Functions (2)
- Chapter 9 Cryptology: (2)
- Chapter 10-11 Primitive Roots and Quadratic Reciprocity: (2)
 - FINAL: 150 points**