

- **Course Instructor(s):** Mark Kisin, [kisin@g.harvard.edu](mailto:kisin@g.harvard.edu)
- **TA's:**
- **Meeting Time:** Monday 12:00 PM - 01:15 PM; Friday 12:00 PM - 01:15 PM
- **Location:**
- **Office hours:**
- **Midterm:** In class

This is an introduction to number theory. The course includes many gems of elementary number theory, some of which serve as the germs of more advanced topics. We will take an approach driven by direct arguments, and examples. What little theory we develop will be used to illuminate more direct arguments.

Topics to be covered include

- Factorization and the primes.
- Quadratic residues and reciprocity
- Diophantine equations, including Pell's equation.
- Dirichlet's Theorem on primes in an arithmetic progression, and Dirichlet L-functions

We will use Ireland and Rosen, *A classical introduction to modern number theory* as a text book.

There will be homework every 1-2 weeks.