

SOME TOPICS TO KNOW FOR THE FIRST MIDTERM

- The Fundamental Theorem of Arithmetic
- Greatest common divisor, least common multiple
- Congruences
- Fermat's Little Theorem, Euler's generalization
- The Sun Ze Theorem
- Fast modular exponentiation (see the beginning of the Large Prime Numbers handout)
- The pigeonhole principle
- The finite geometric sum and its variants