

What to Expect on the Midterm Exam

The midterm exam on Monday, October 10 will consist of five (5) questions, each worth twenty (20) points. The material covered will be the first two chapters of the textbook. Self contained calculators will be allowed; notes and books will not. Blue books and scratch paper will be provided.

There will be two questions which ask you to compute something. Examples of what “compute” means here include: finding the greatest common divisor via the Euclidean algorithm; solving congruences, solving simultaneous congruences (the Chinese Remainder Theorem); multiplying permutations; and producing addition and/or multiplication tables.

There will be two definitions, possibly with applications. You should be able to recall all the definitions we’ve had and be able to apply the definitions to specific situations. For example, you should be able to recall the definition of even permutation and be able to determine whether specific permutations are even or odd.

You should be able to recall the named theorems we’ve dealt with: the Division Algorithm (really a theorem, not an algorithm), Euclid’s Lemma, the Fundamental Theorem of Arithmetic, Fermat’s Theorem and Euler’s generalization, and the Chinese Remainder Theorem.