

Abstract Algebra, Unit 1 Plan, F2023

Tues	Thurs
Aug 15, 2023	Aug 17, 2023
	Intro to class A.2, Equivalence Relations 4.3-I, Integers mod m (p 154-5) <i>Please read A.2 and 4.3-I before class.</i> In class today: • D A.2: 15, 17; 4.3-I: 36, 37
Aug 22, 2023	Aug 24, 2023
4.3-II, Abstract Commutative Rings (p 156-160) Due today: • Read 4.3-II • D 4.3-II: 31, 32, 42-i, EE* • Read 4.3-III + notes, RQ 4.3-III	4.3-III, Units, Fields (p 160-164 + notes on $\mathbf{C}$, $\mathbf{Z}[i]$, $\mathbf{Z}[\omega]$) Due today: • W 4.3 54-i* • D 4.3-III: 42-ii, 42-iii, 54-ii, 55 • Read 4.3-IV + notes; RQ 4.3-IV
Aug 29, 2023	Aug 31, 2023
4.3-IV, Subrings, Subfields (p 166-167 + notes) Quiz 1 (4.3-II) Due today: • W 4.3-III: 44 • D 4.3-IV: 56, 57*, 60-i, 64 • Read 5.1-I + notes; RQ 5.1-I	5.1-I, Domains & Structure of $\mathbf{Z}$ (p 191-193 + notes on 1.3) Due today: • W 4.3-IV: 59 • D 5.1: 1, 2*, 1.3: 48, 49* • Read 5.1-II; RQ 5.1-II
Sep 5, 2023	Sep 7, 2023
5.1-II, Fraction Fields (p 193-195) Quiz 2 (4.3-IV) Due today: • W 5.1: 4 • D 5.1: 5, 6 • Read A.1, RQ A.1	A.1, Functions & Preview 5.2 Due today: • W 5.1: 7 • D A.1: 4, 5, 6, 8 • Read 5.2 + notes; RQ 5.2
Sep 12, 2023	Sep 14, 2023
5.2, Formal Polynomials & Polynomial Functions Due today: • D 5.2: 9, 10, 26, 28, (17) • Read 5.3-I, RQ 5.3-I	<i>No Class</i> <i>(Spiritual Emphasis Week Chapel)</i>
Sep 19, 2023	Sep 21, 2023
Exam 1 (4.3-5.2) <i>Exam will be 65 minutes; we'll have a 5 minute break, and then a 10 minute preview of 5.3.</i>	5.3-I, Homomorphisms (p 206-216) Due today: • W 5.2: 14 • D 5.3-I: 29, 33, 34 • Read 5.3-II, RQ 5.3-II

*An asterisk next to a problem indicates that I have modified the problem or provided a hint. EE stands for "Extra Exercise." See the "Corrections and Modifications" document. (A problem in parentheses is a challenge problem. Make sure you understand the other problems before attempting the challenge problems.)