

Course Overview

Autumn 2010

Math 345

Jim Fowler

Week 1

Wednesday, September 22, 2010 Propositional calculus (§2)
Thursday, September 23, 2010 Examples with real numbers (§2)

Week 2

Monday, September 27, 2010 Tautologies (§2)
Tuesday, September 28, 2010 Solving equations (§2)
Wednesday, September 29, 2010 Contradiction, contrapositives (§2)
Thursday, September 30, 2010 Quantifiers (§3)

Week 3

Monday, October 4, 2010 Bound variables (§3)
Tuesday, October 5, 2010 Nested quantifiers (§3)
Wednesday, October 6, 2010 Number theory (§4)
Thursday, October 7, 2010 Parity (§4)

Week 4

Monday, October 11, 2010 Irrationality (§4)
Tuesday, October 12, 2010 Divisibility (§4)
Wednesday, October 13, 2010 Congruences (§4)
Thursday, October 14, 2010 Prime numbers (§4)

Week 5

Monday, October 18, 2010 Polynomials (§4)
Tuesday, October 19, 2010 **Midterm 1**
Wednesday, October 20, 2010 Induction (§5)
Thursday, October 21, 2010 Induction and divisibility (§5)

Week 6

Monday, October 25, 2010 Pascal's triangle (§5)
Tuesday, October 26, 2010 Binomial theorem (§5)
Wednesday, October 27, 2010 More on binomial theorem (§5)

Thursday, October 28, 2010 Fibonacci numbers (§5)

Week 7

Monday, November 1, 2010 Sums of squares (§6)
Tuesday, November 2, 2010 Strong induction (§7)
Wednesday, November 3, 2010 Sets (§10)
Thursday, November 4, 2010 Intersections, unions, subsets (§10)

Week 8

Monday, November 8, 2010 Algebra of set operations (§10)
Tuesday, November 9, 2010 Some practice problems (§10)
Wednesday, November 10, 2010 **Midterm 2**
Thursday, November 11, 2010 *Veteran's Day*

Week 9

Monday, November 15, 2010 Functions (§11)
Tuesday, November 16, 2010 Surjections, injections (§11)
Wednesday, November 17, 2010 Inverse functions (§11)
Thursday, November 18, 2010 Families of sets (§12)

Week 10

Monday, November 22, 2010 Counting (§13)
Tuesday, November 23, 2010 Combinatorics (§14)
Wednesday, November 24, 2010 Infinite sets (§15)
Thursday, November 25, 2010 *Thanksgiving*
Friday, November 26, 2010 *Columbus Day*

Week 11

Monday, November 29, 2010 Bijections (§15)
Tuesday, November 30, 2010 Diagonalization argument (§15)
Wednesday, December 1, 2010 Countability (§16)
Thursday, December 2, 2010 Continuum hypothesis (§16)