

University of South Carolina
Math 170: Finite Mathematics
Section 006
Spring 2012

Test 2 Study Guide

Section A.2

- Rewrite an English or logical statement using DeMorgan's Laws. (# 81, 82, 85 - 88)

Section A.3

- Draw conclusions using modus ponens, modus tollens, or disjunctive syllogism. (# 103 - 108)

Proofs (not in text)

- Prove statements about numbers (including even and oddness) directly, by contrapositive, or by contradiction.

Section 6.2

- Find the cardinality of a union, complement, or Cartesian product. (# 31, 33, Example 5)

Section 6.3

- Count using steps and alternatives. (# 15, 17, 19, 21, 67)

Section 6.4

- Count using combinations and permutations. [Note: You need not memorize the cards in a poker deck or the names of hands.] (# 29 - 41 odd, 49 - 53 odd)

Section 7.3

- Find probability when outcomes are not equally likely. (# 47, 55, 57)
- Find probability when outcomes are equally likely. (# 9, 13)
- Find the probability of a union or complement. (# 25, 33, 63)

Section 7.4

- Find probabilities using counting techniques from Chapter 6. (# 3, 5, 9, Example 4, 19, 21)

Section 7.5

- Compute conditional probability using the definition. (# 15, 21, 45, 47)

Section 7.6

- Solve Bayes' Theorem problems. [Note: Make certain you can identify when Bayes' Theorem is needed in a word problem and which probabilities are conditional and which are unconditional. It will not be spelled out in detail like in the notes.] (# 9, 11, 13, 15)