Math 351 test 2 preparation

How best to prepare?   Review the homework exercises. Study the practice test.

**Study chapter 6 and chapter 7 (sections 7.1, 7.2, and 7.3) including all the Questions in each section.**

**1.**  Learn all the definitions (exactly as they appear in Mattuck).

This includes the definition of lim sup and lim inf of a sequence as well as convergent series, absolutely convergent series, and conditionally convergent series.

Know statements of all the named theorems.

**2**.   True and False questions may include converse, inverse, or contrapositive of well-known results in the text as well as statements that may test your intuition.

For example,

If

If A and B are non-empty bounded sets, t

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**3.** Computational problems

Finding the sup, inf, max, min of a given sequence.

Finding lim sup, lim inf of a bounded sequence.

Determine if a given sequence is Cauchy using only the definition

geometric series

Sum a series

Elementary convergence tests.

**4.**  Proofs

Cluster point theorem

Bolzano-Weierstrass theorem

completeness property for subsets of the reals

properties of sup and inf.

nth term test for divergence

linearity theorem for series

tail-convergence theorem

comparison test

absolute convergence theorem