

Math 421 - Midterm 2 Notes

1. Topics to cover:
 - (a) Functions (after midterm 1).
 - (b) Limit. Sum, product, inverse of limits.
 - (c) Continuous/discontinuous function. Sum, product, inverse, composition of continuous functions. Continuity over an interval. f is continuous at a and its function value at a is positive, then f is positive in an open interval containing a .
 - (d) Least upper bound, Archimedian property, proof of the theorems using least upper bound.
 - (e) Lectures 6,7, 8 and 9
2. Exercises to cover:
 - (a) Examples from Lectures 6, 7, 8, 9.
 - (b) HW3, HW4, HW 5
 - (c) 11, 12, 13, 15, 16 Chapter 5; 7, 8, 10, 11, 14 Chapter 6; Exercises 1, 2, 3, 4 Chapter 7 in Spivak Book